

FIG. 1

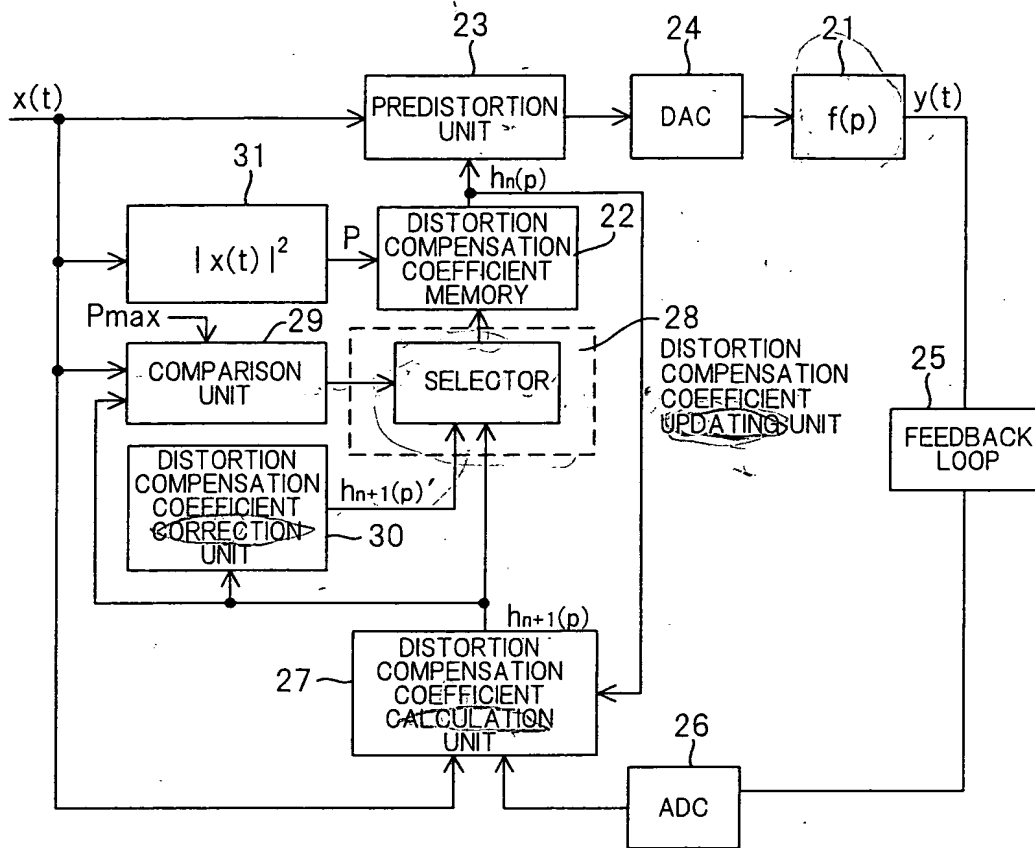


FIG. 2

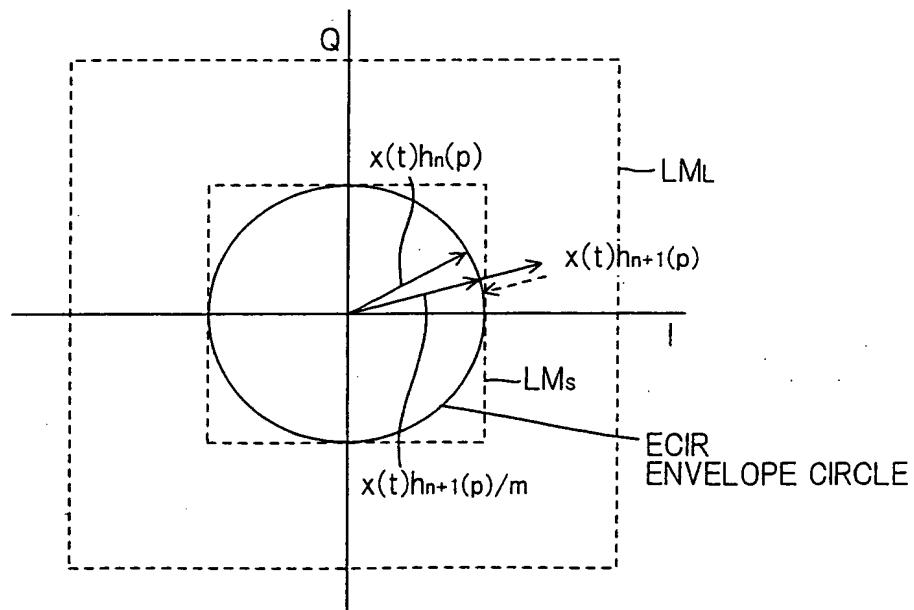


FIG. 3

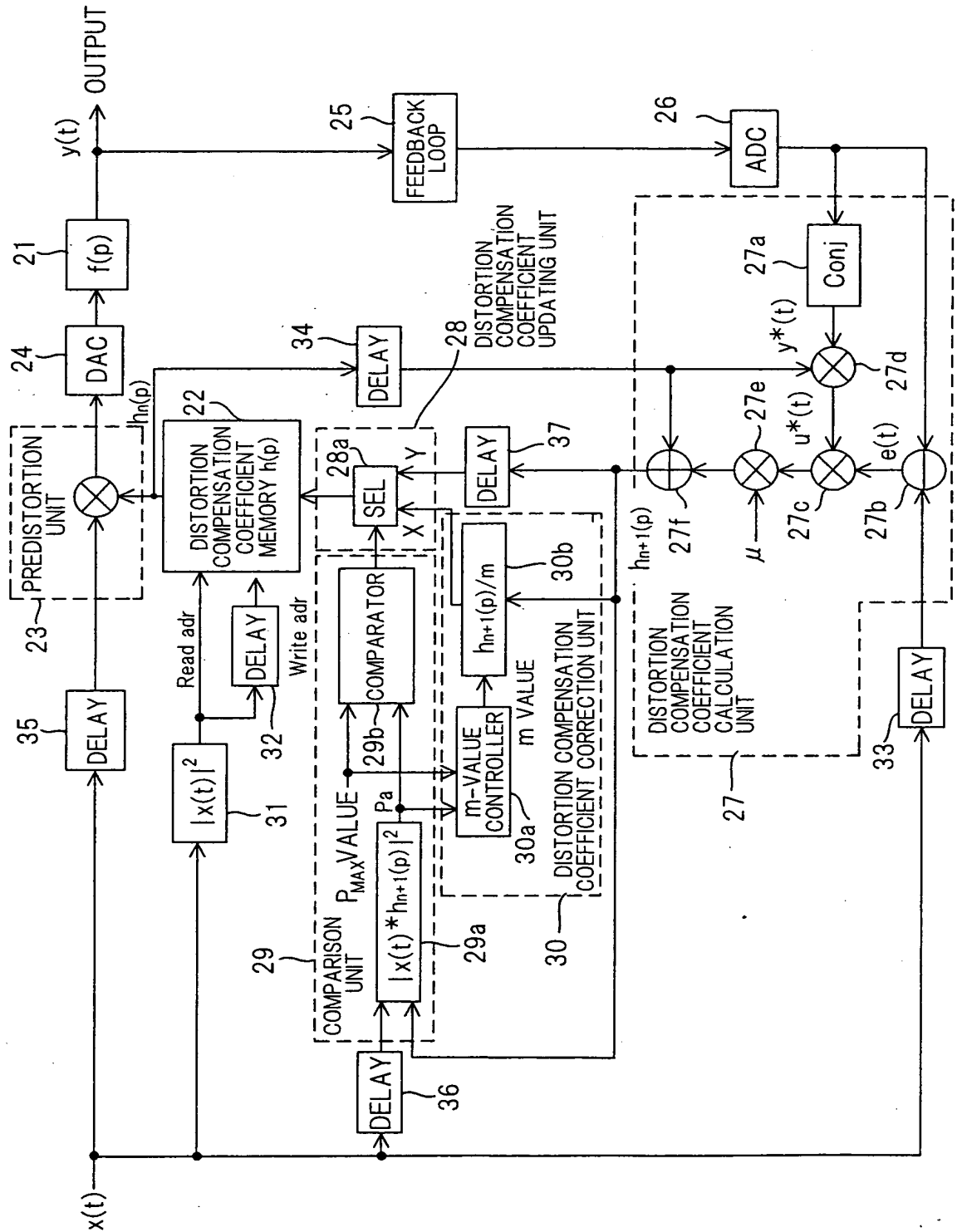


FIG. 4

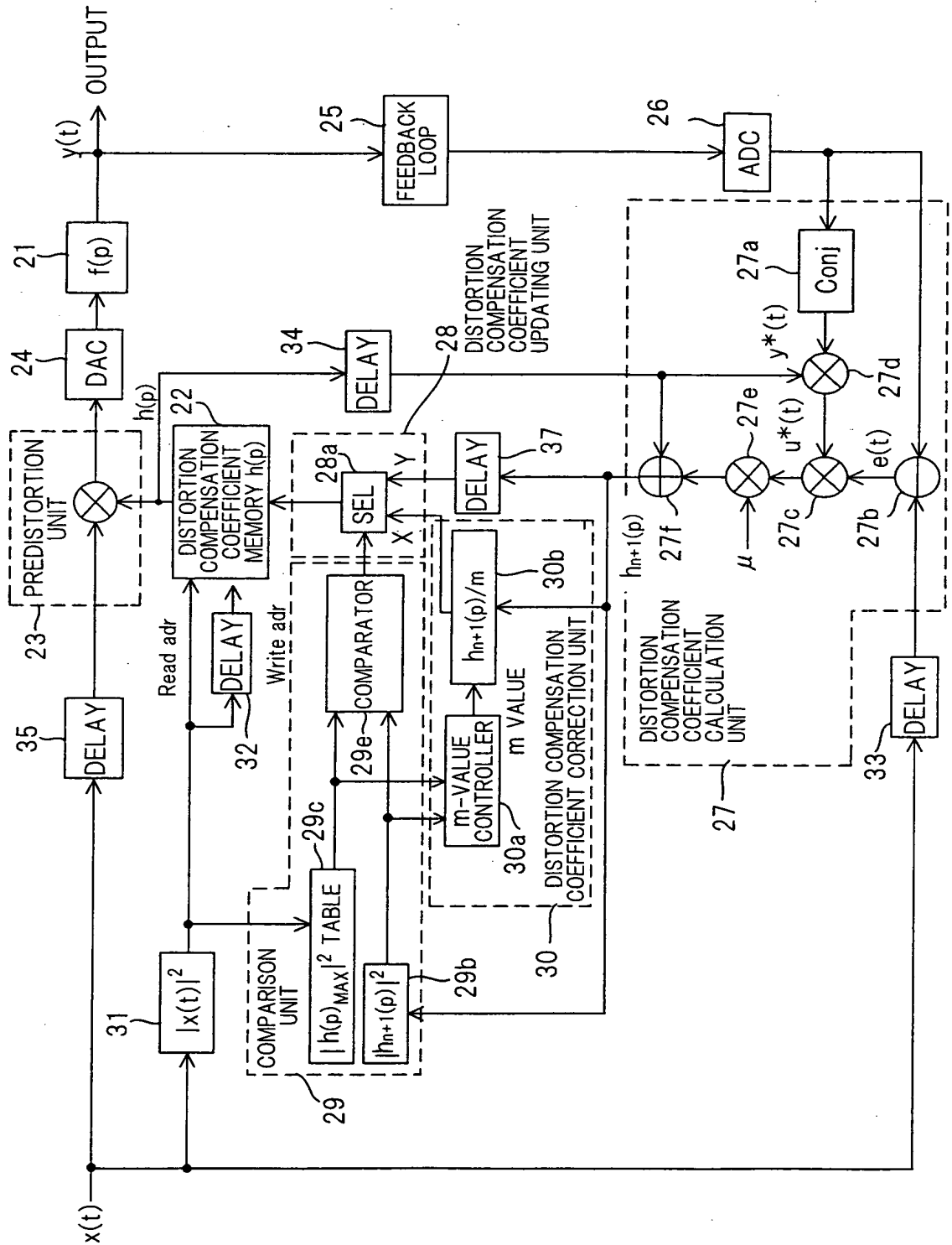


FIG. 5

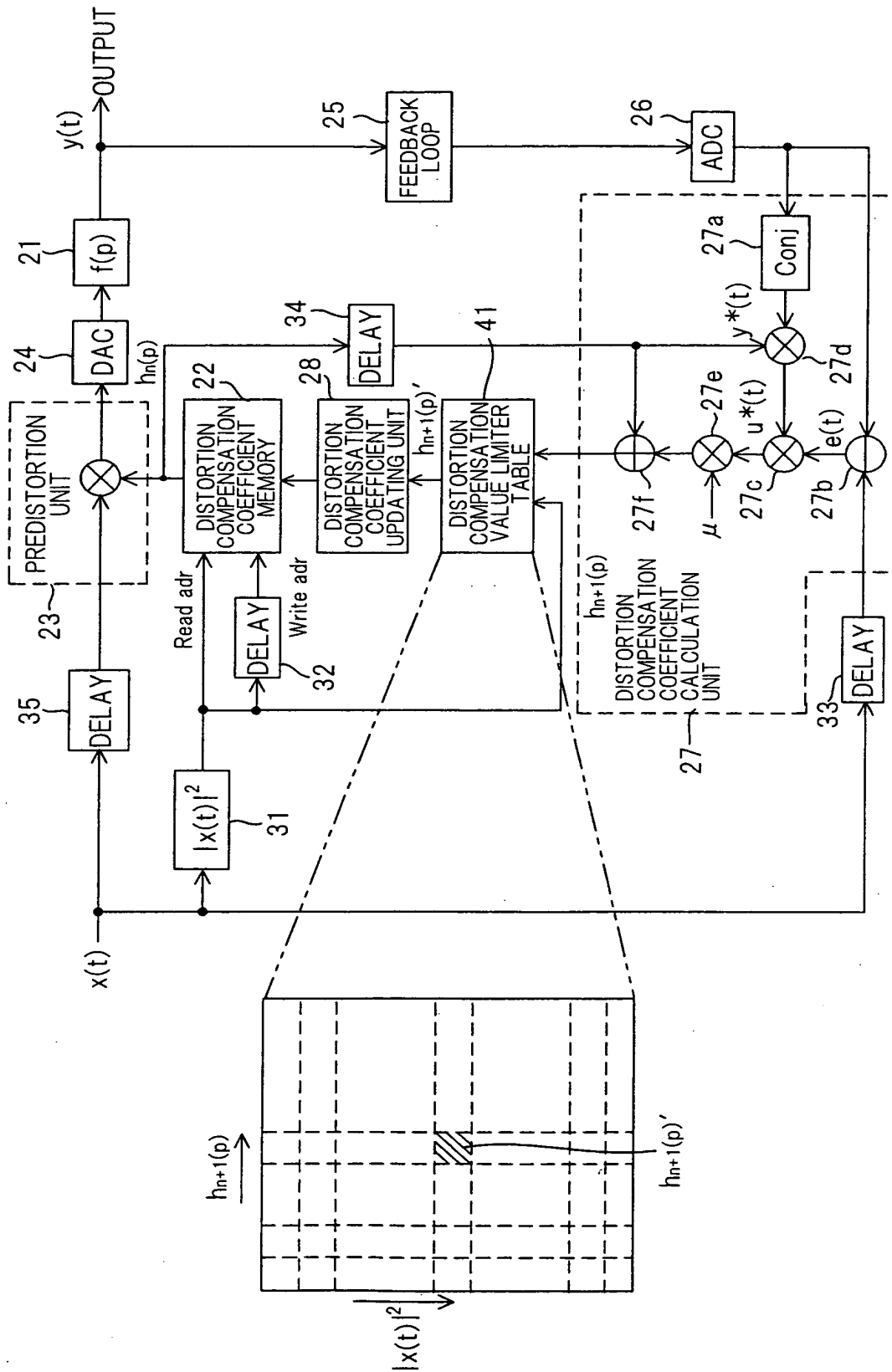


FIG. 6

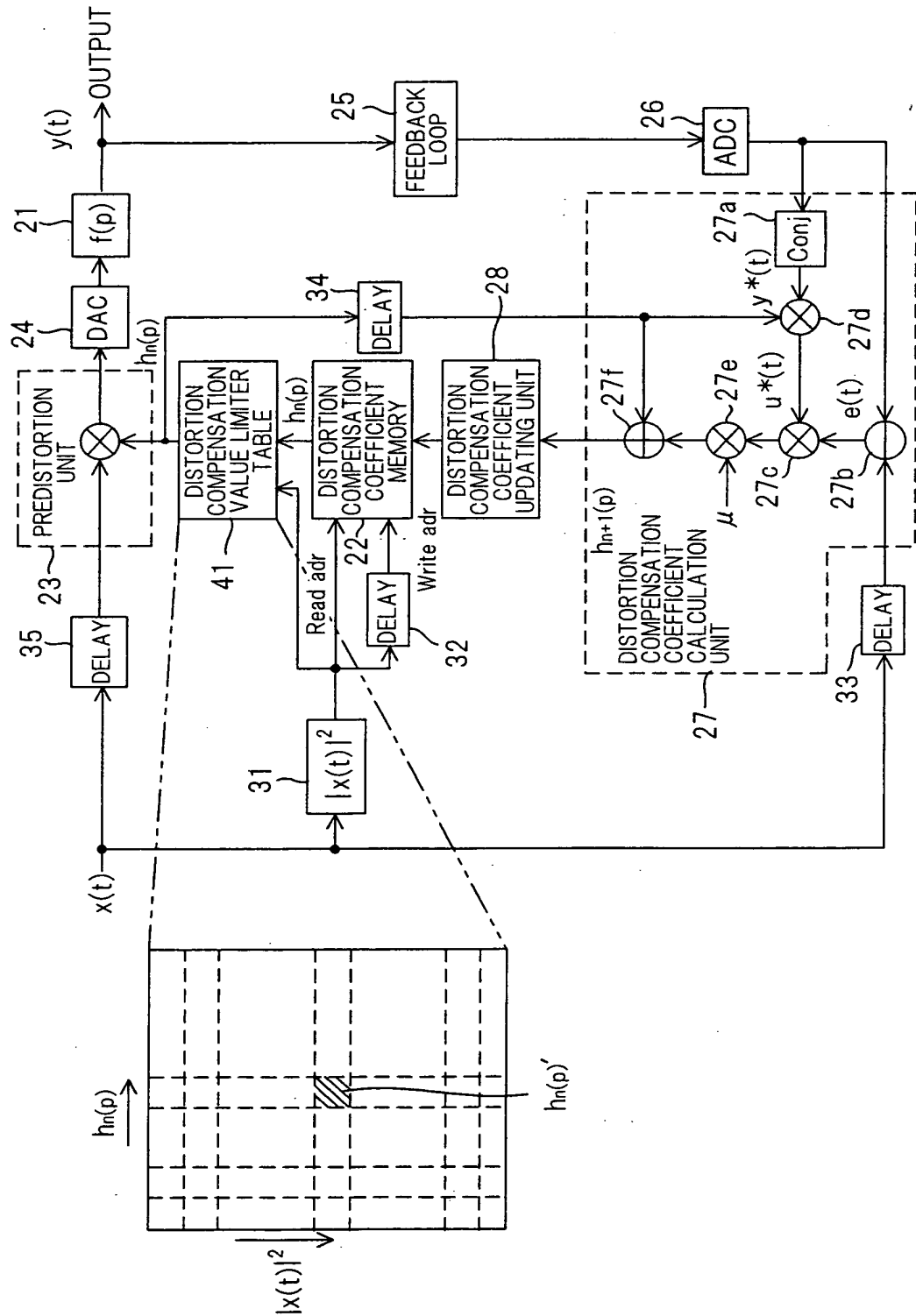


FIG. 7

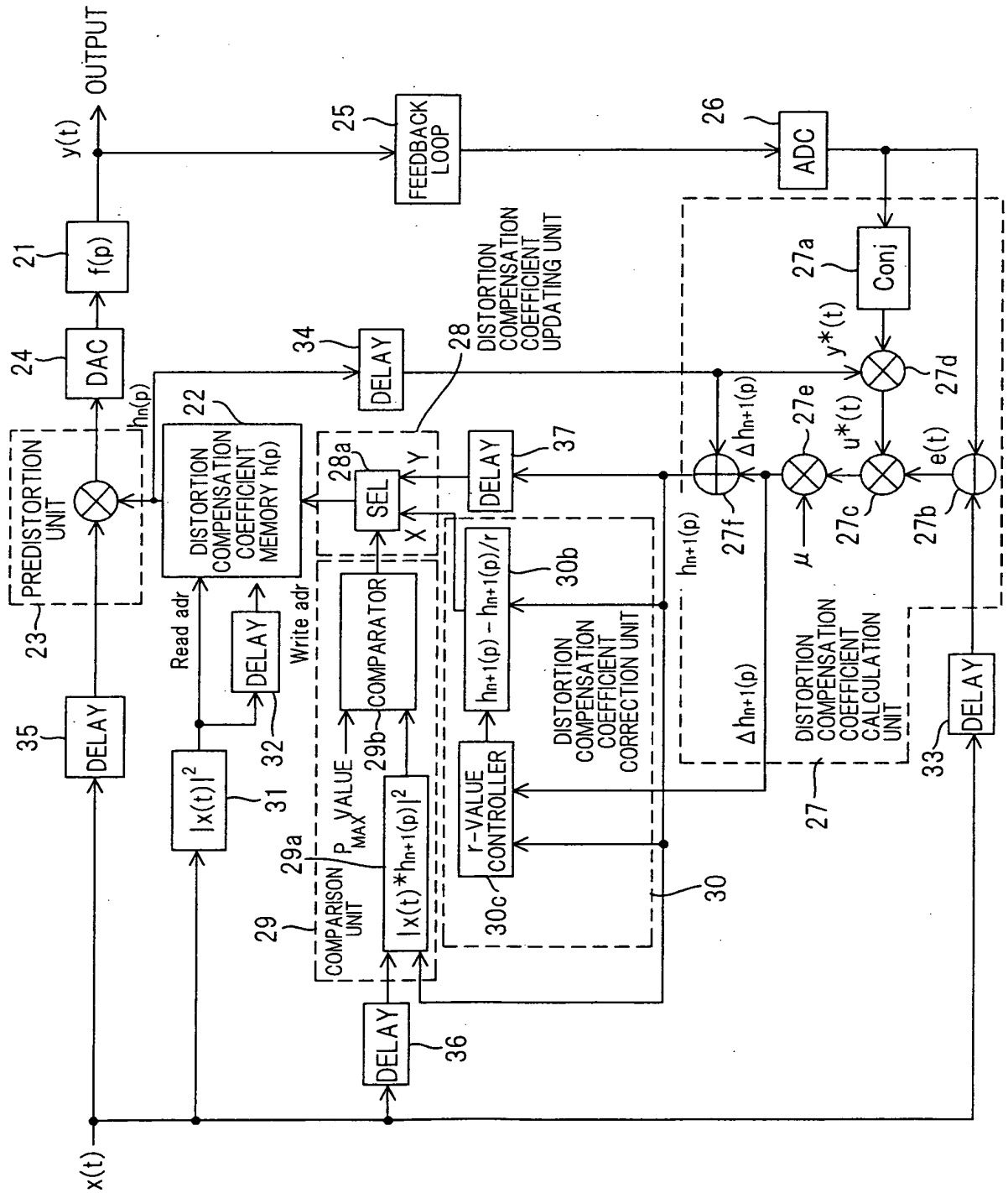


FIG. 8

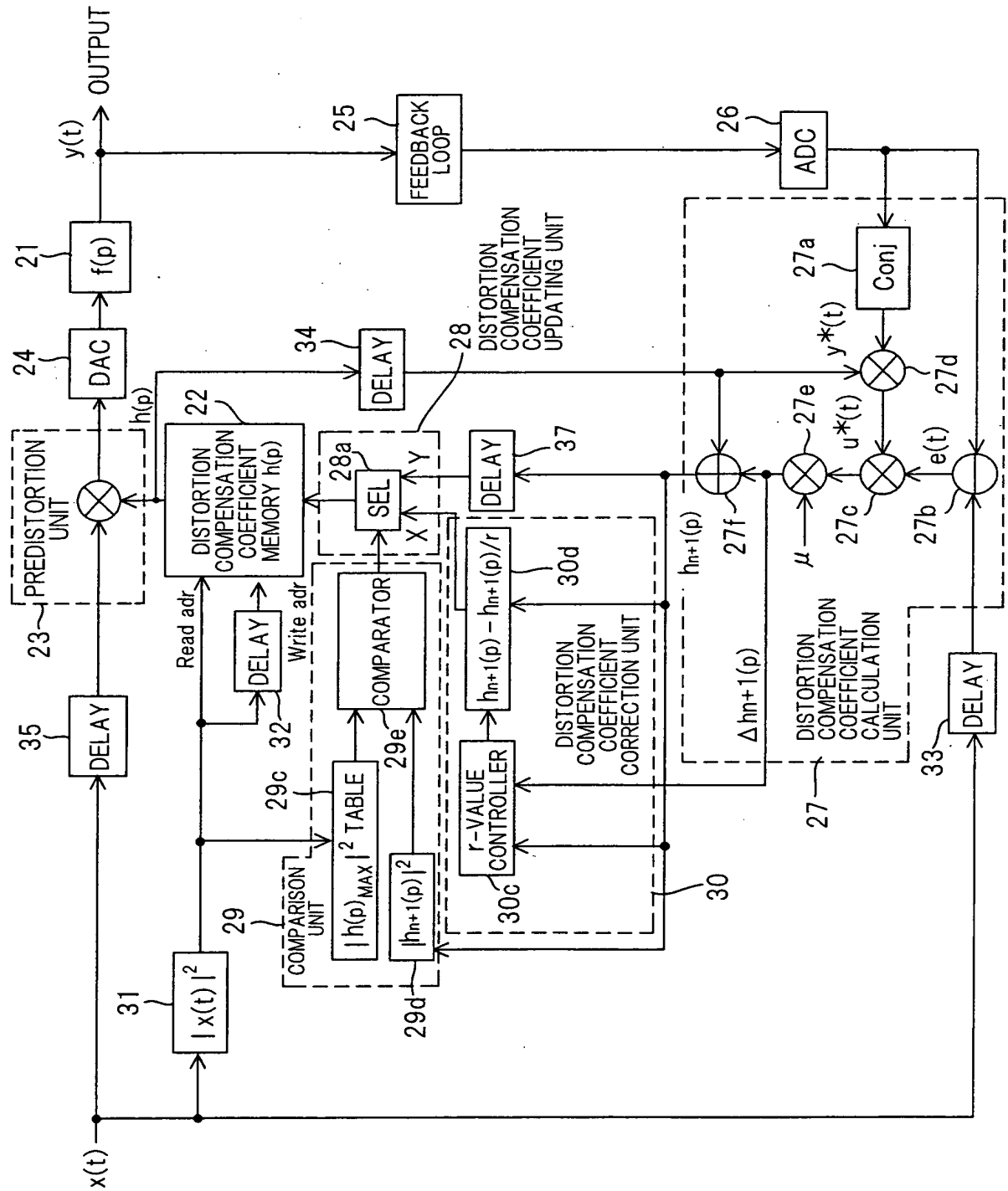


FIG. 9

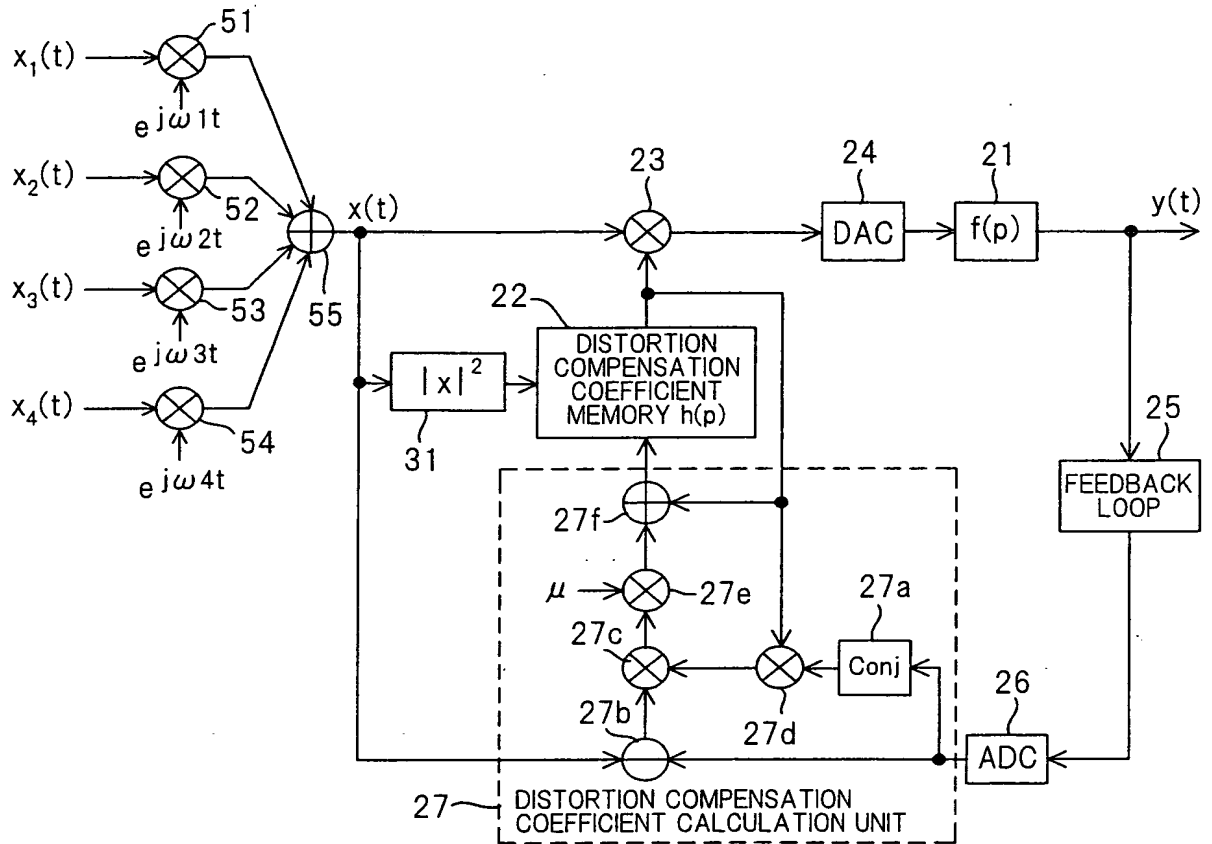


FIG. 10

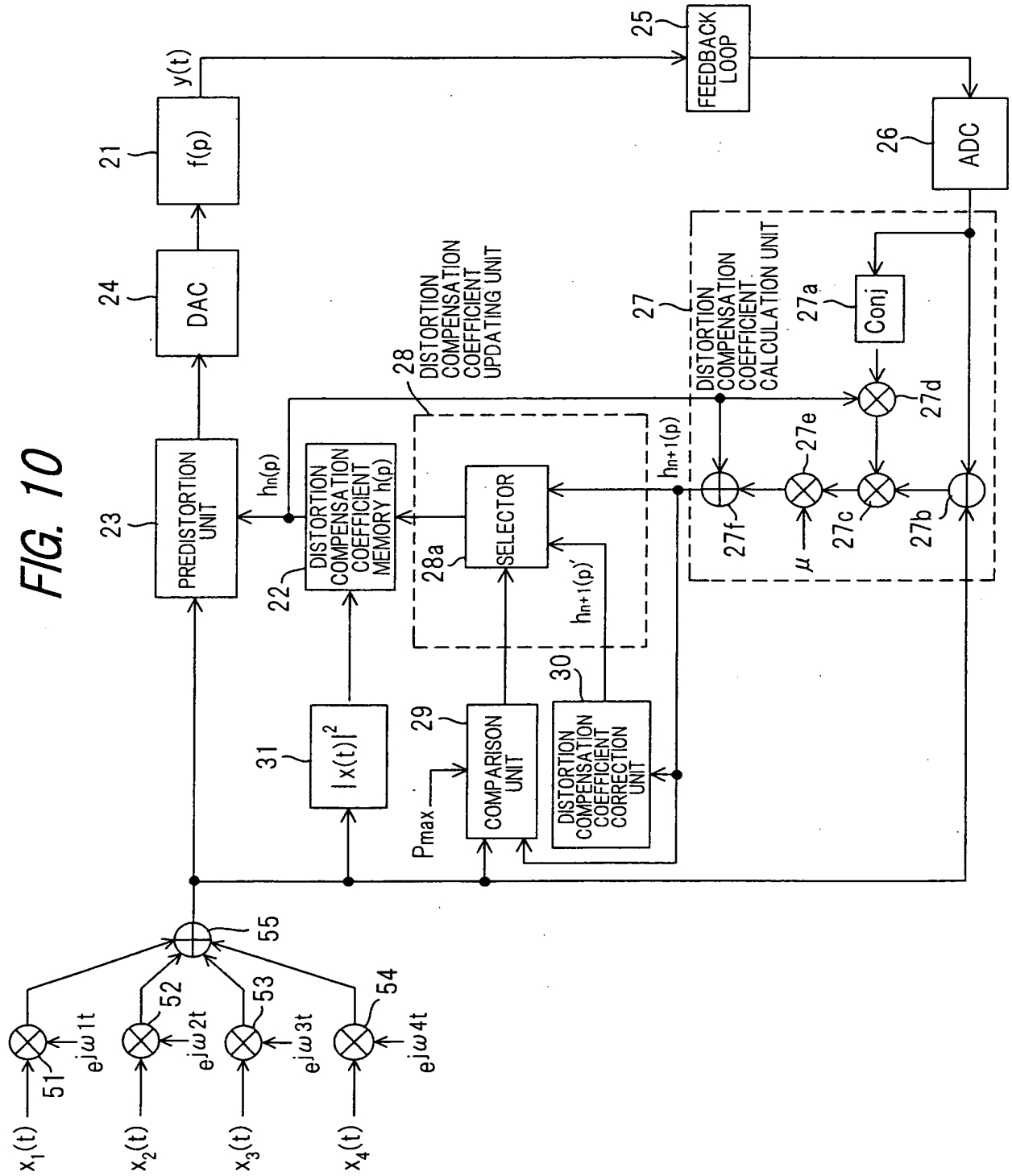


FIG. 11

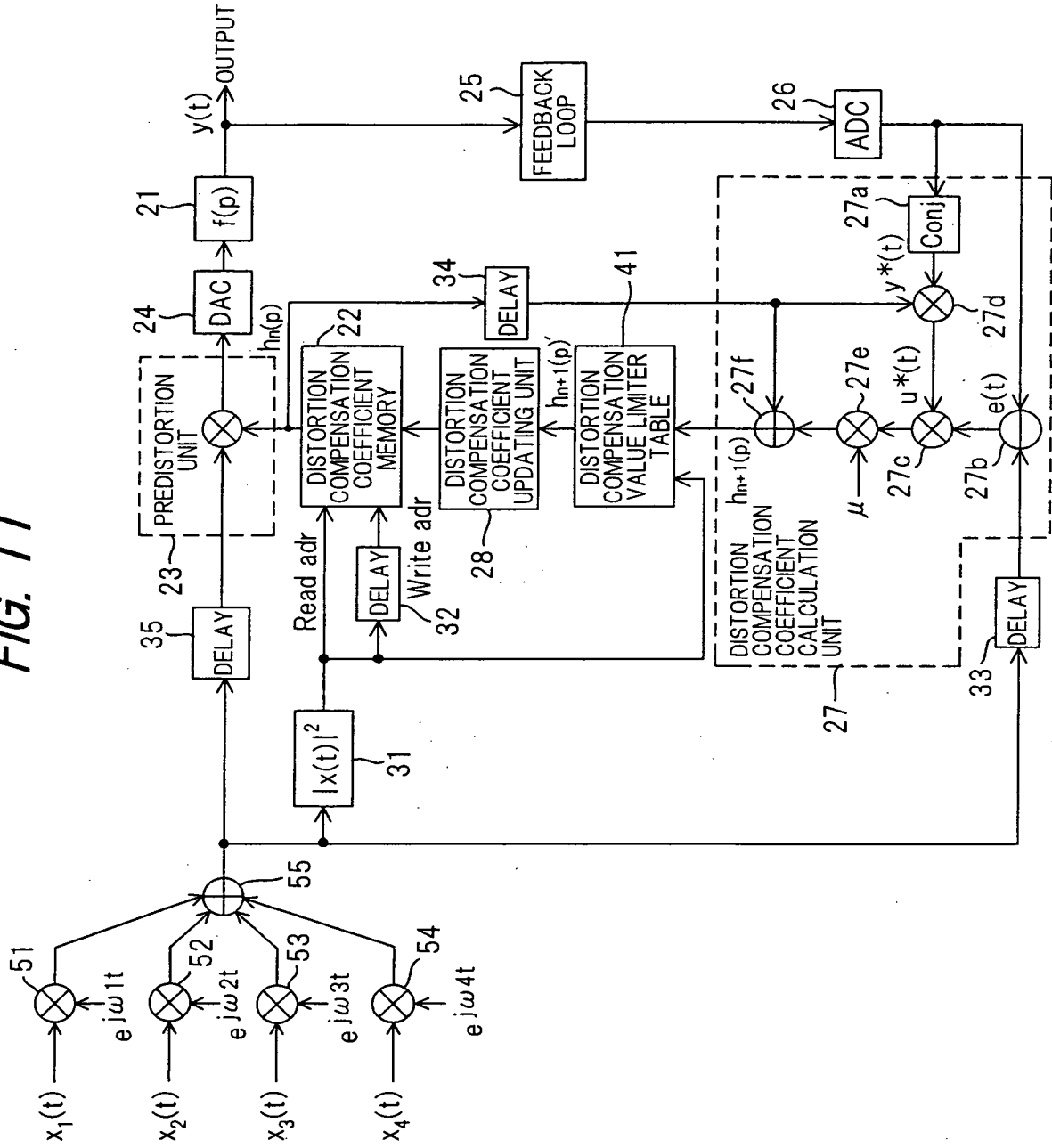


FIG. 12

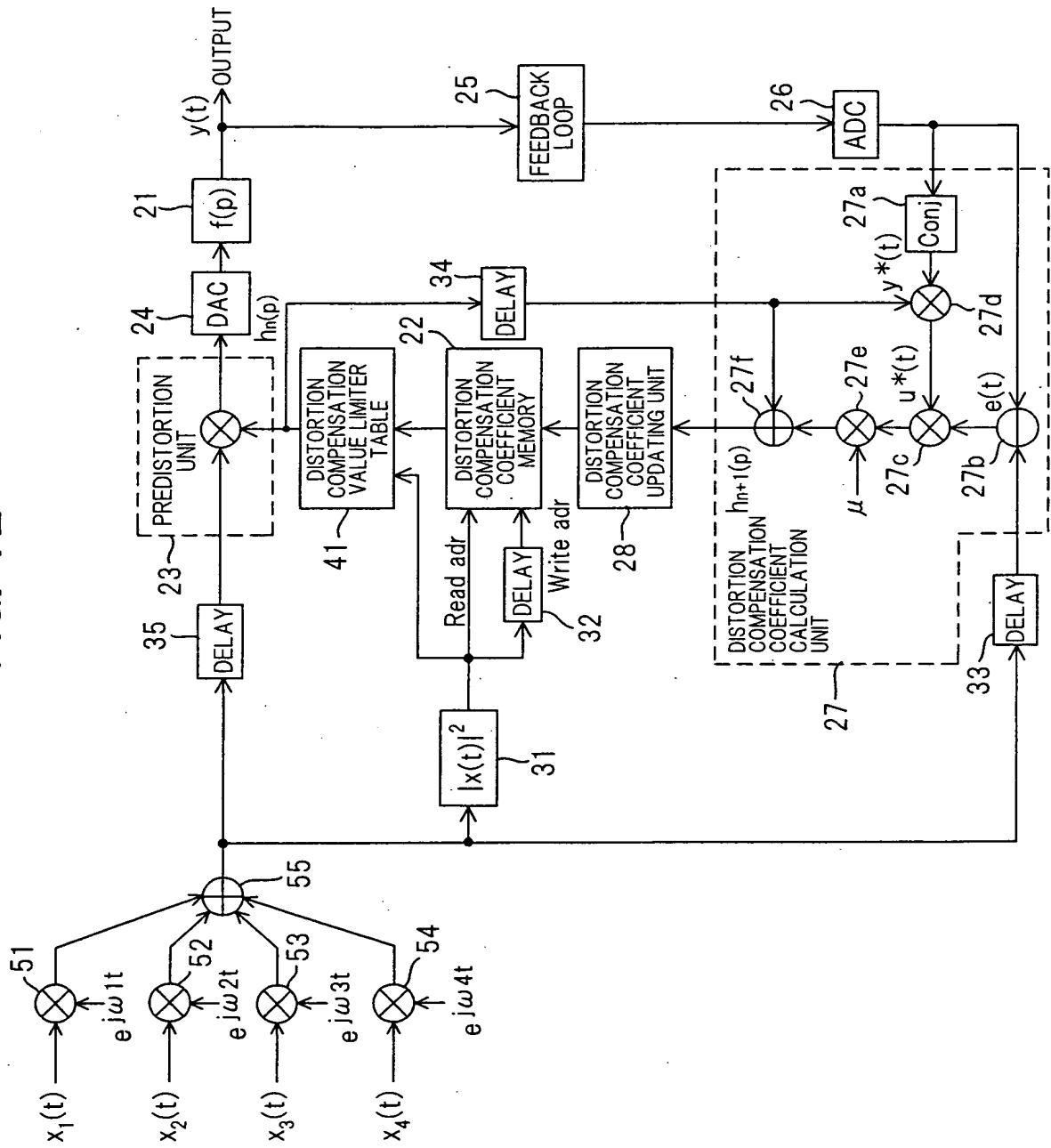


FIG. 13

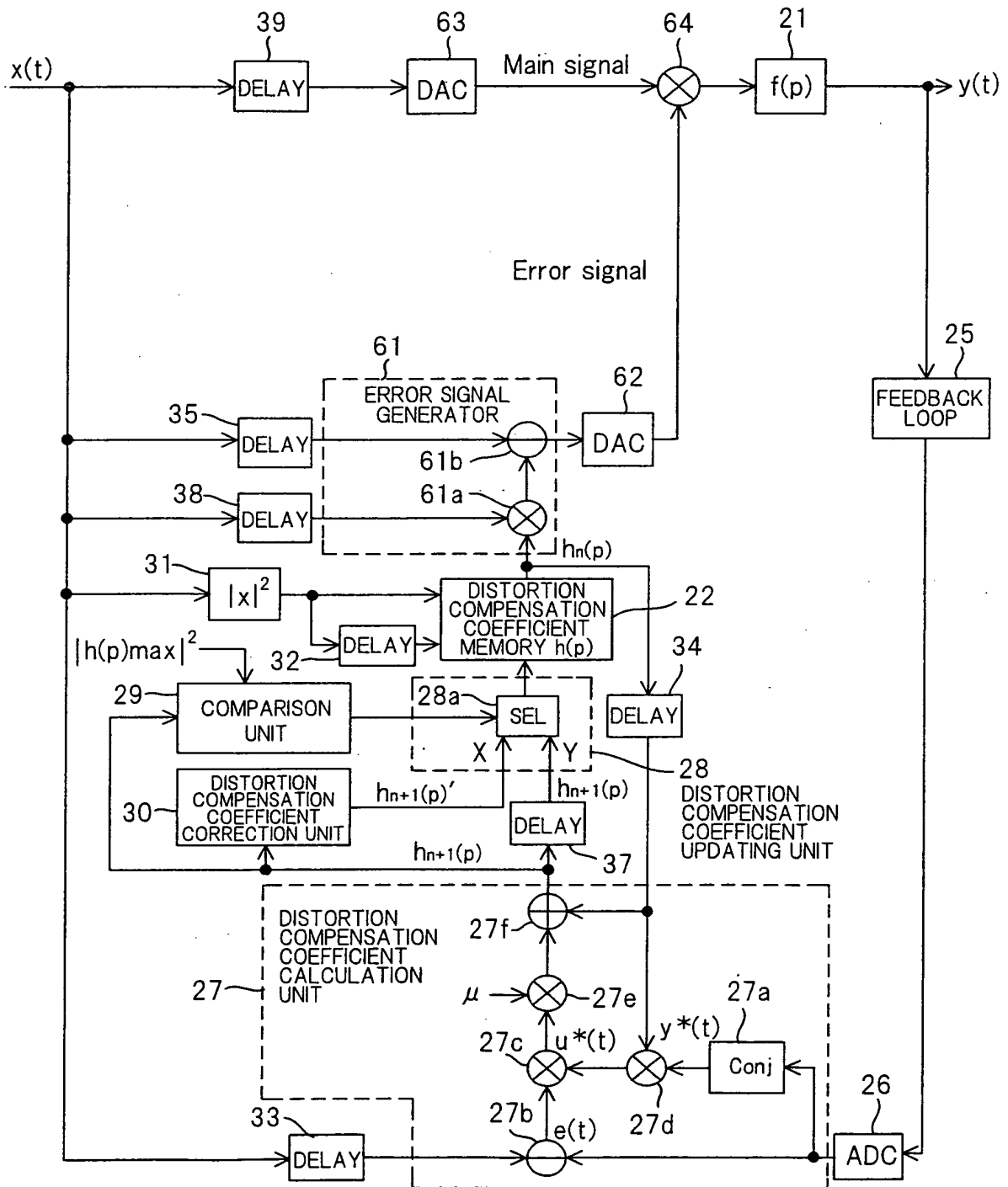


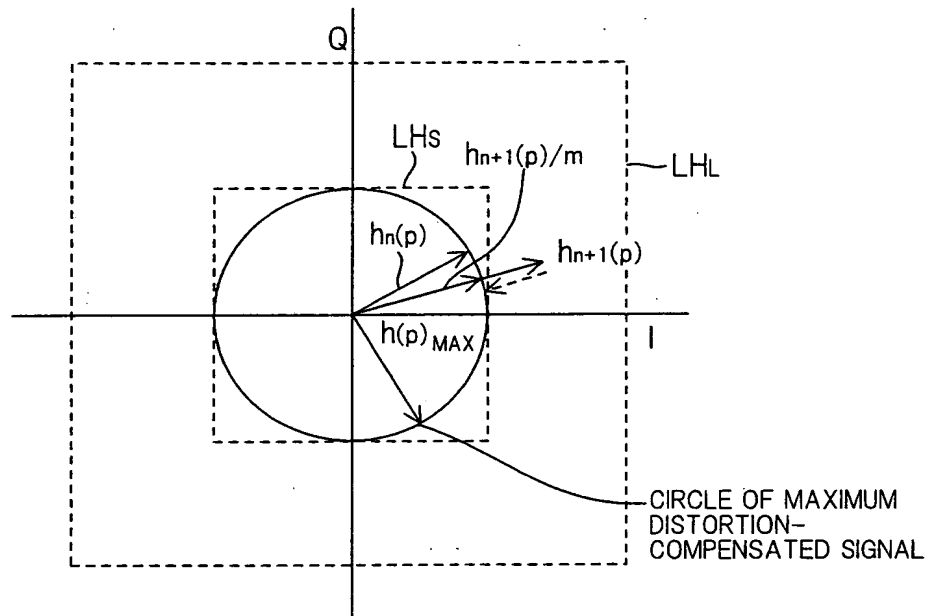
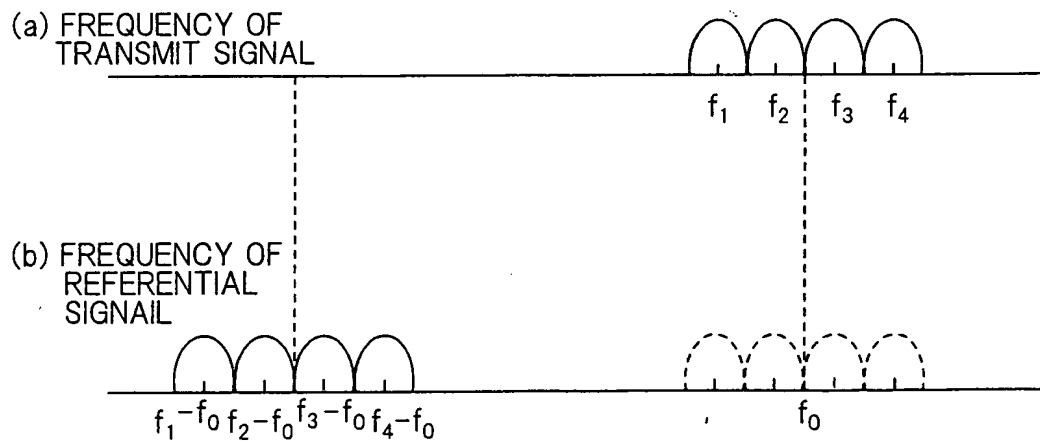
FIG. 14**FIG. 19**

FIG. 15

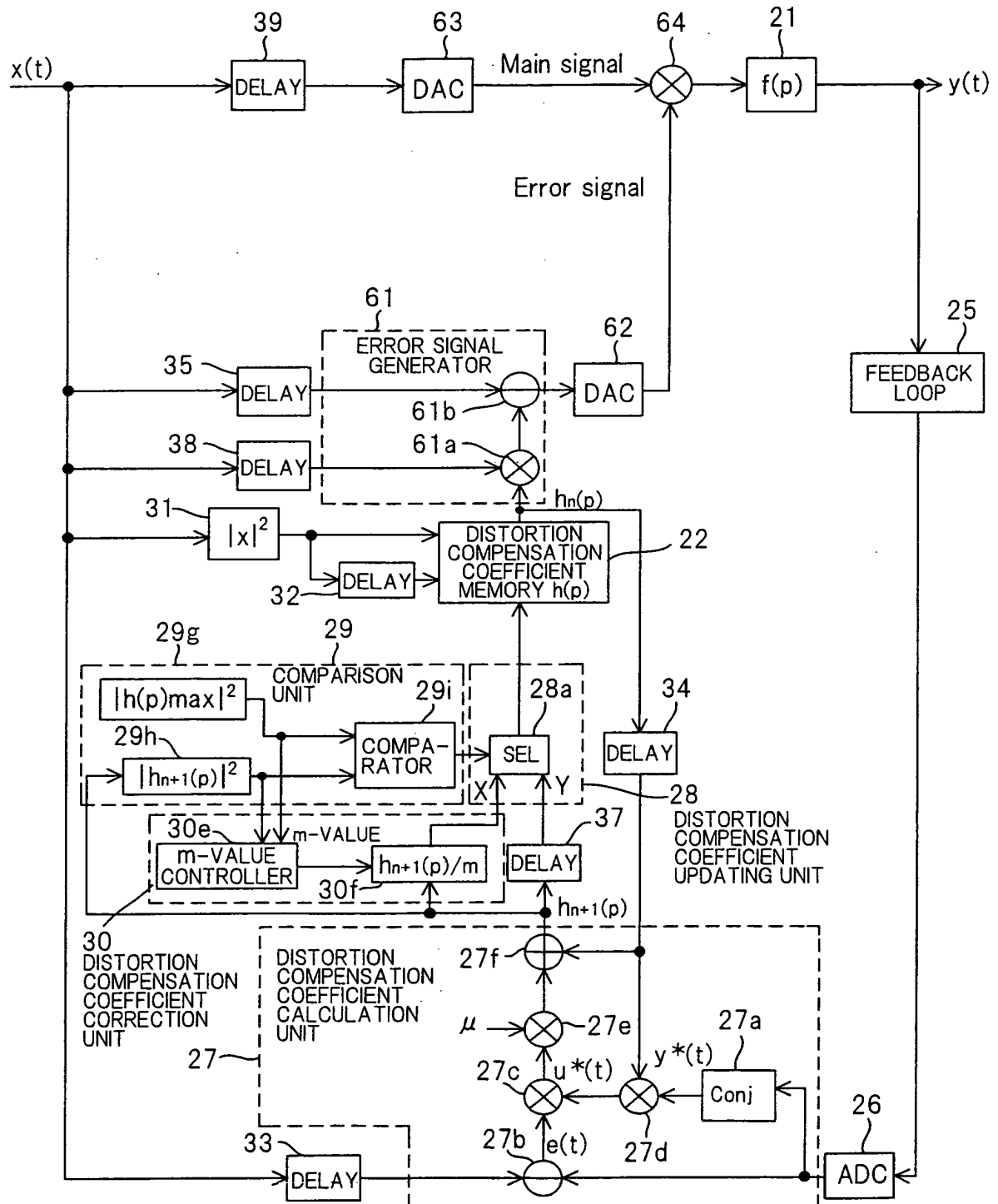


FIG. 16

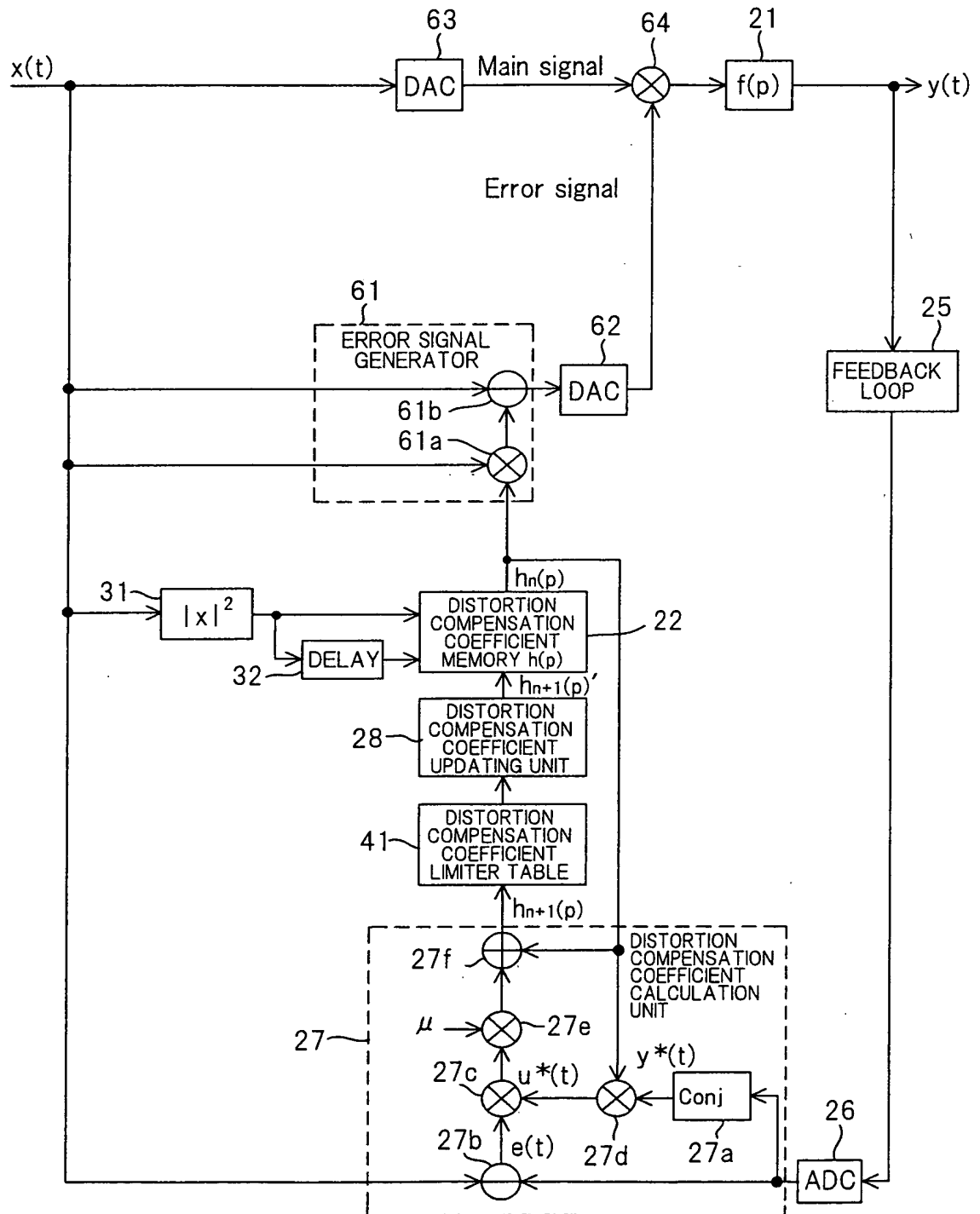
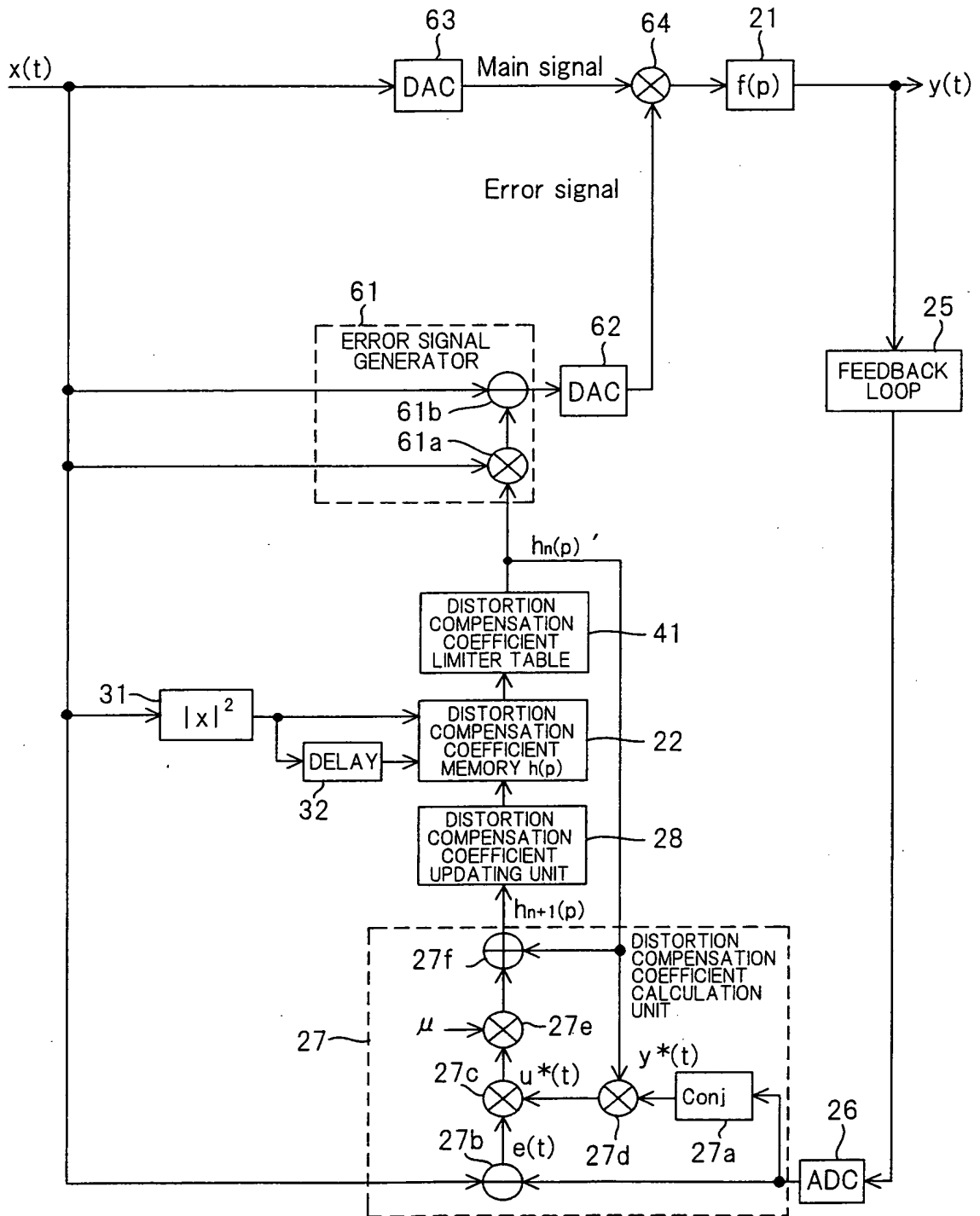


FIG. 17



The diagram illustrates a digital adaptive filter system with four parallel channels. Each channel receives an input signal $x_i(t)$ ($i=1, 2, 3, 4$) which is converted by a DAC (71_i) and then filtered by a low-pass filter (LPF, 72_i). The outputs of these filters are multiplied by coefficients f_1, f_2, f_3, f_4 (73_i) and summed at node 74 to produce the main signal S_M . This signal is then processed by a block $f(p)$ (21) to yield the output $y(t)$. The output $y(t)$ is also fed back through a summer (64) and a delay block (80) to produce an error signal f_0 . This error signal is used to update the coefficients f_i via a DAC (62) and a summer (61). The error signal is also fed into a distortion compensation coefficient calculation unit (27), which includes a summer (27f), a multiplier (27e), a multiplier (27c), a multiplier (27b), and a summer (27d). The unit also receives a reference signal S_R and a feedback signal S_F from an ADC (26). The unit's output is fed back to the DACs (71_i) via a summer (78) and multipliers (77_i) to update the filter coefficients.

FIG. 20

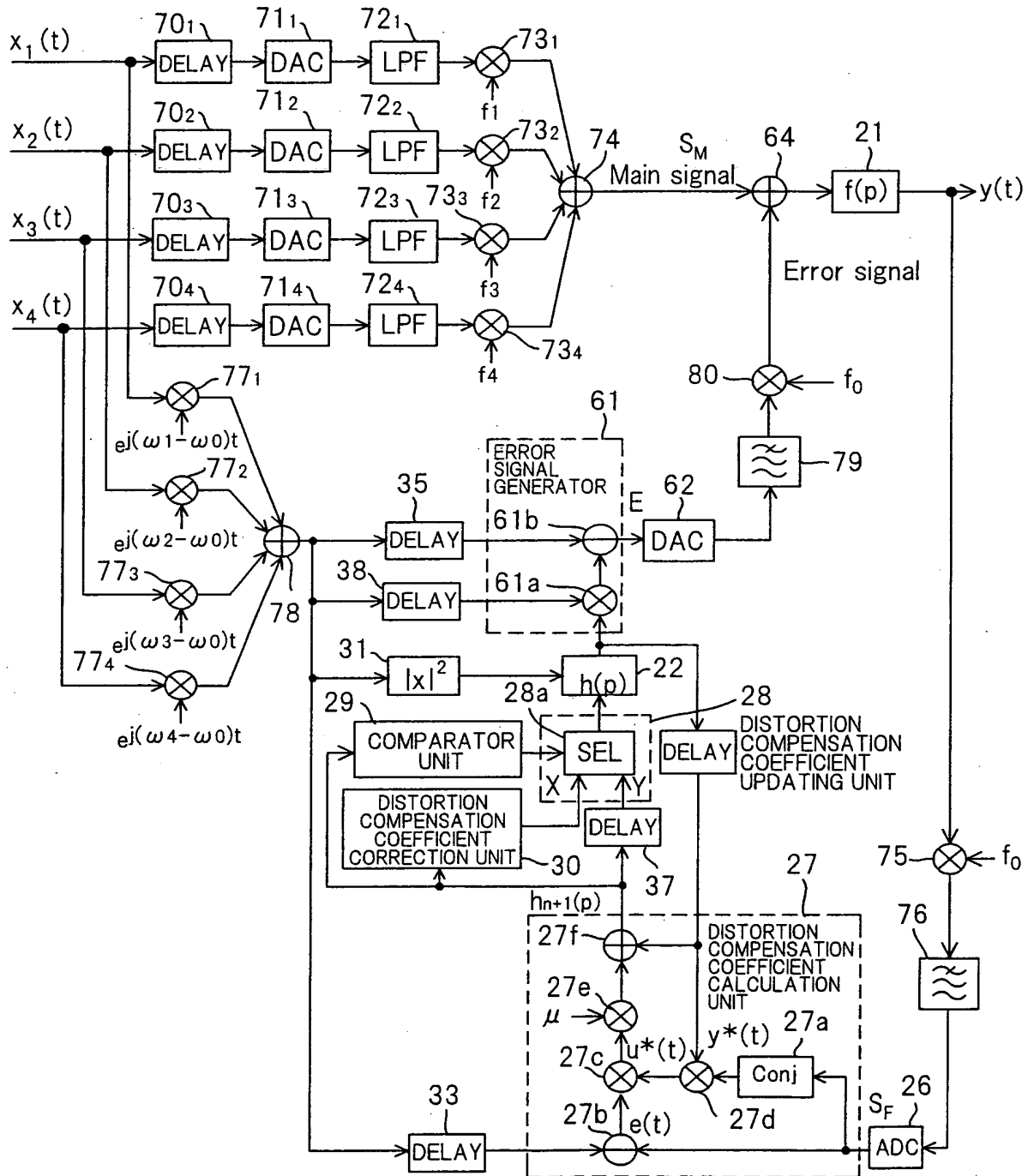


FIG. 21

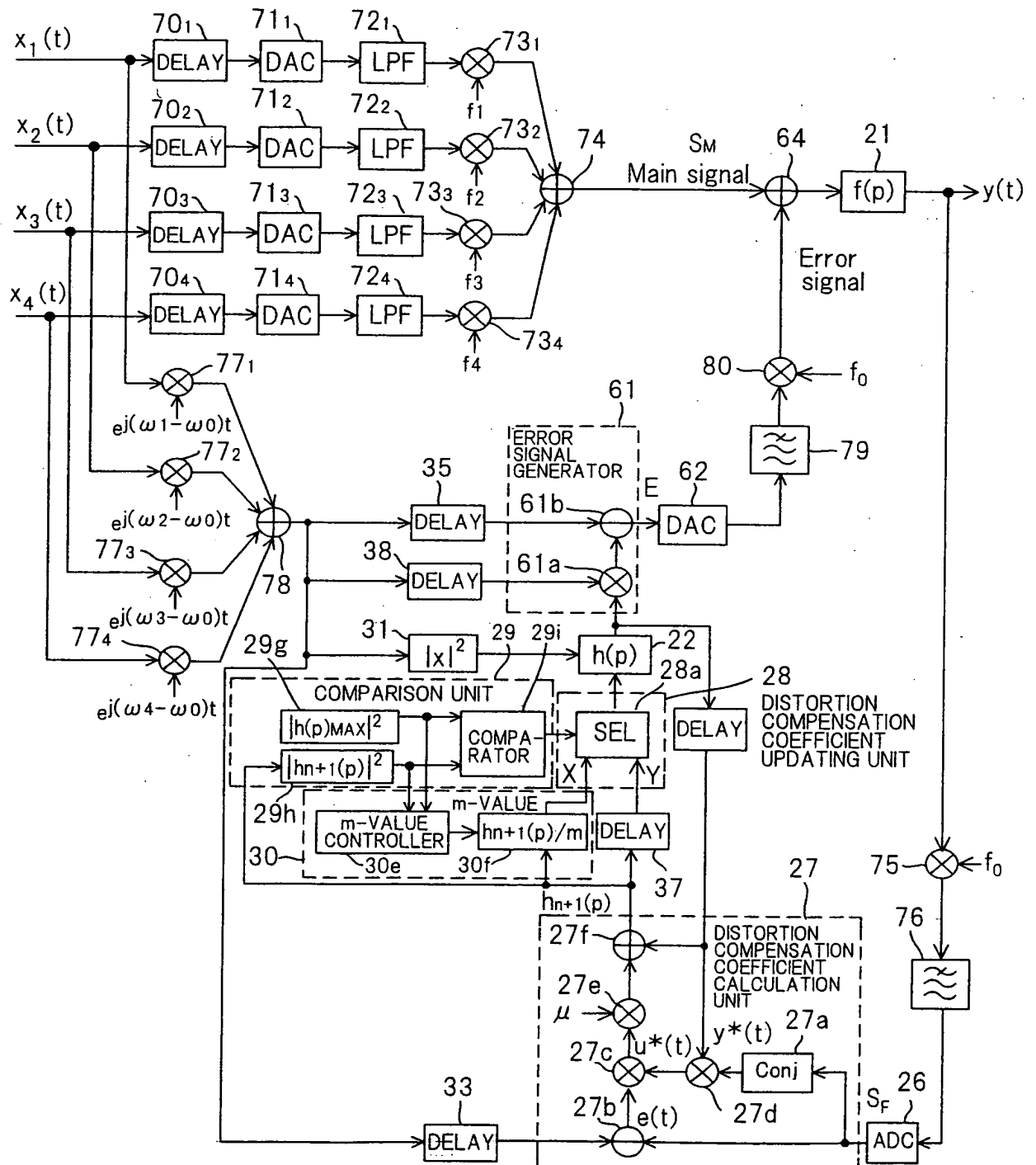


FIG. 22

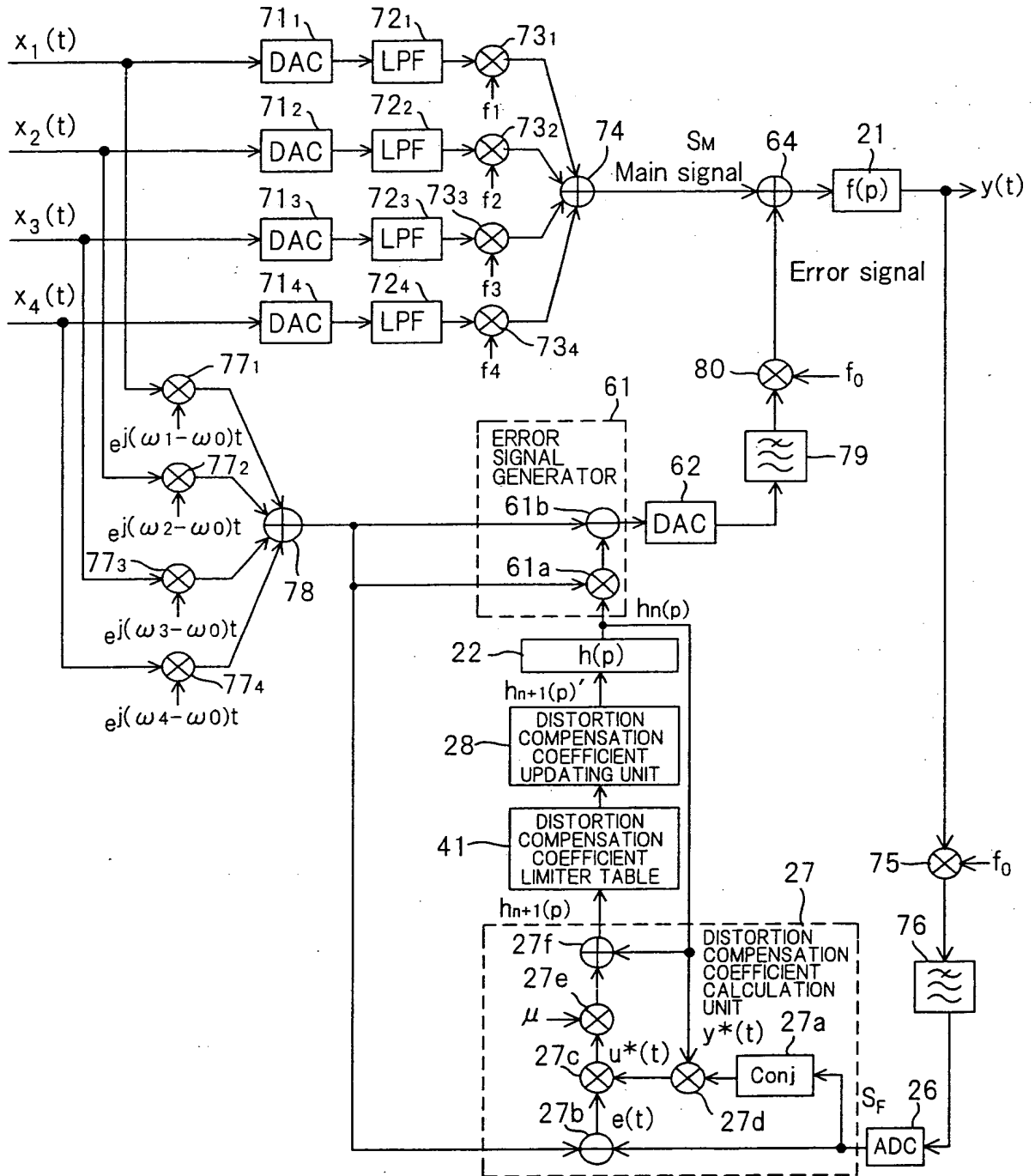


FIG. 23

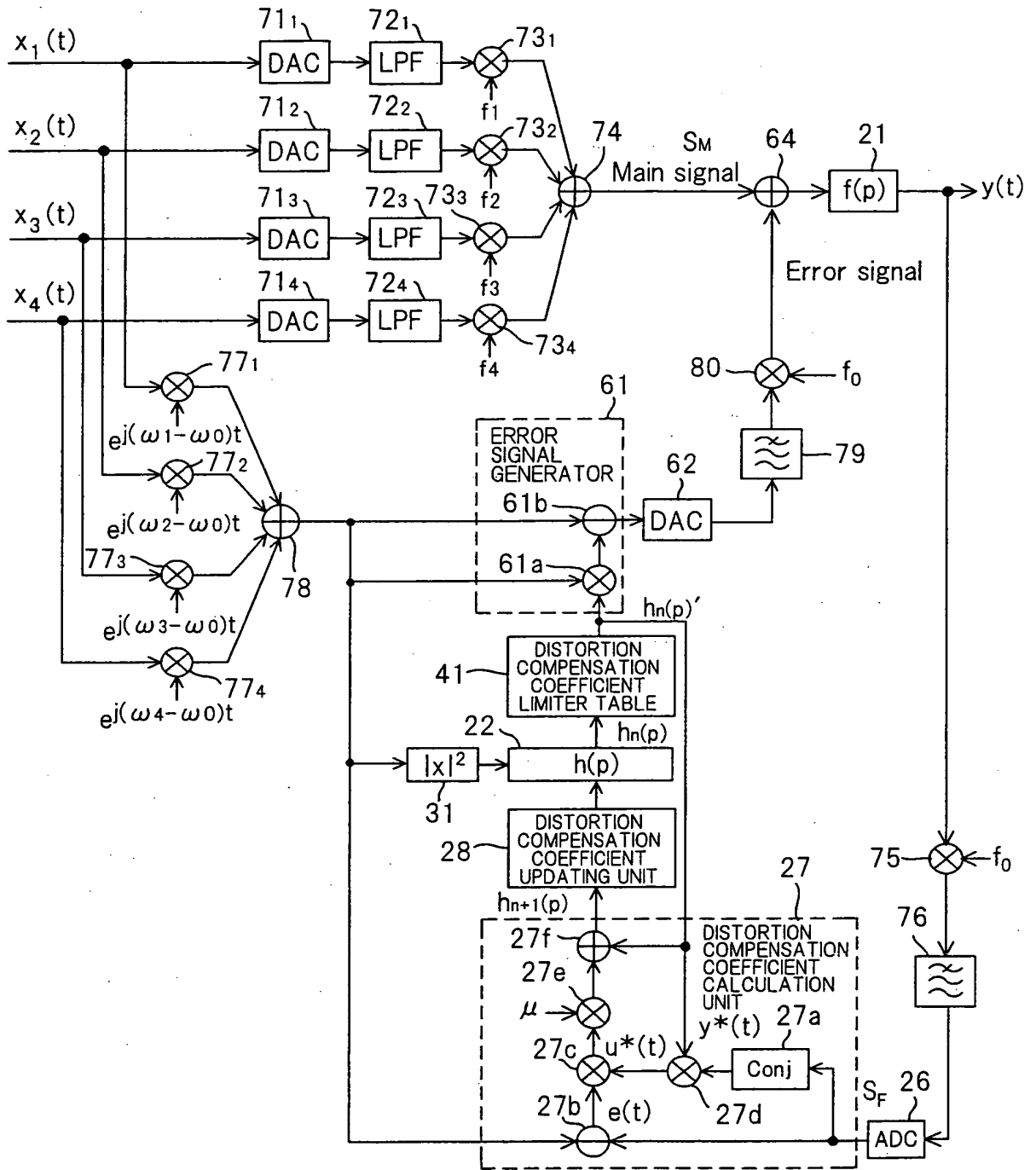


FIG. 24

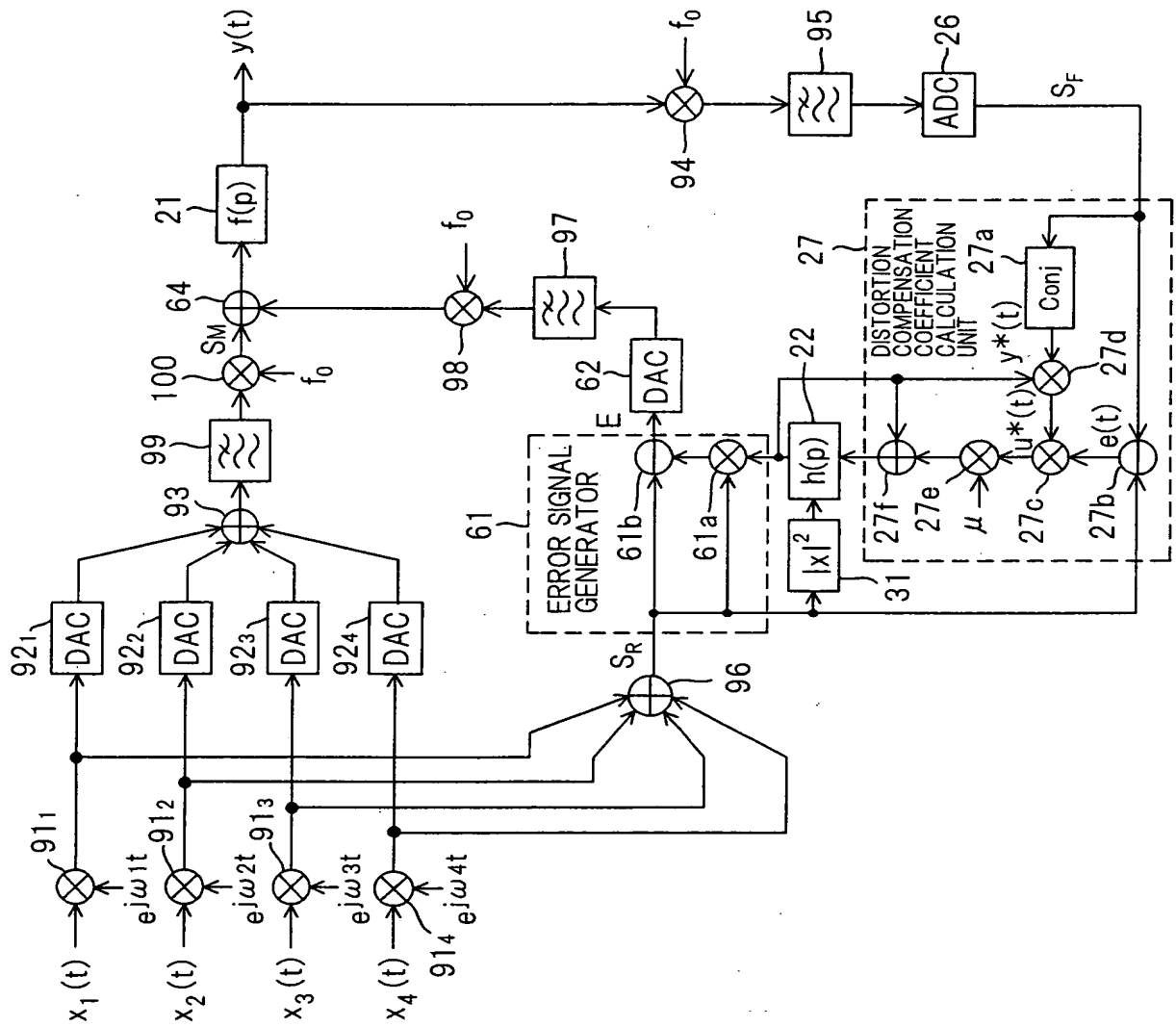


FIG. 25

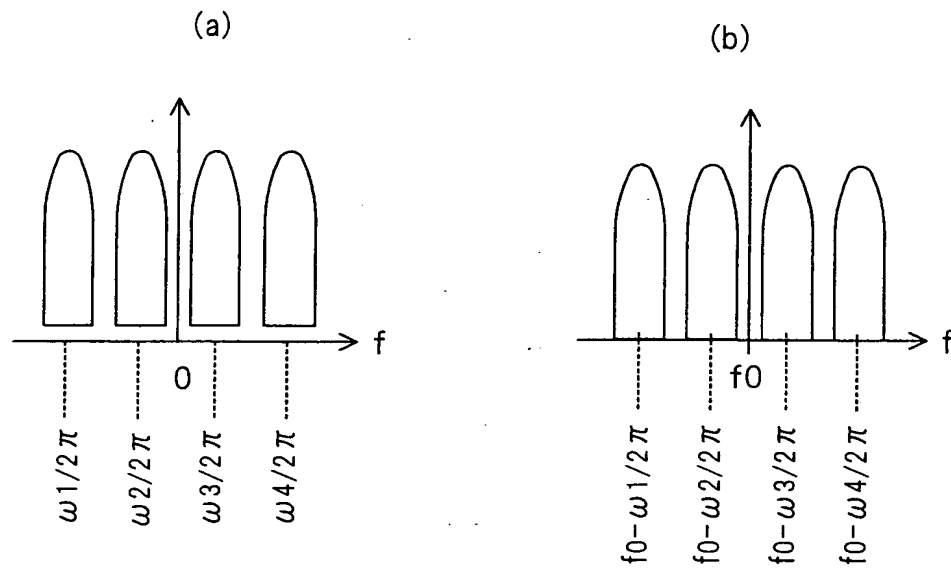


FIG. 40

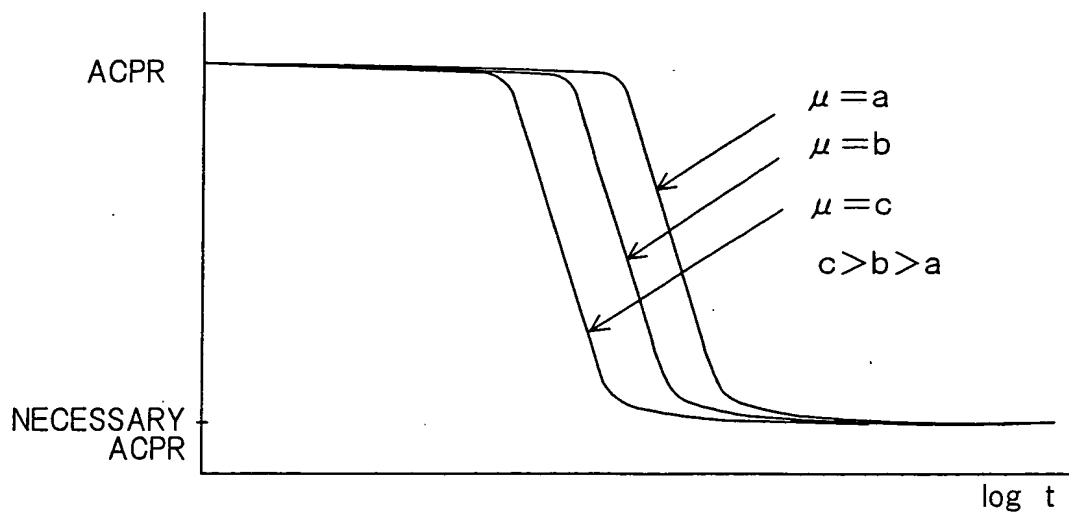


FIG. 26

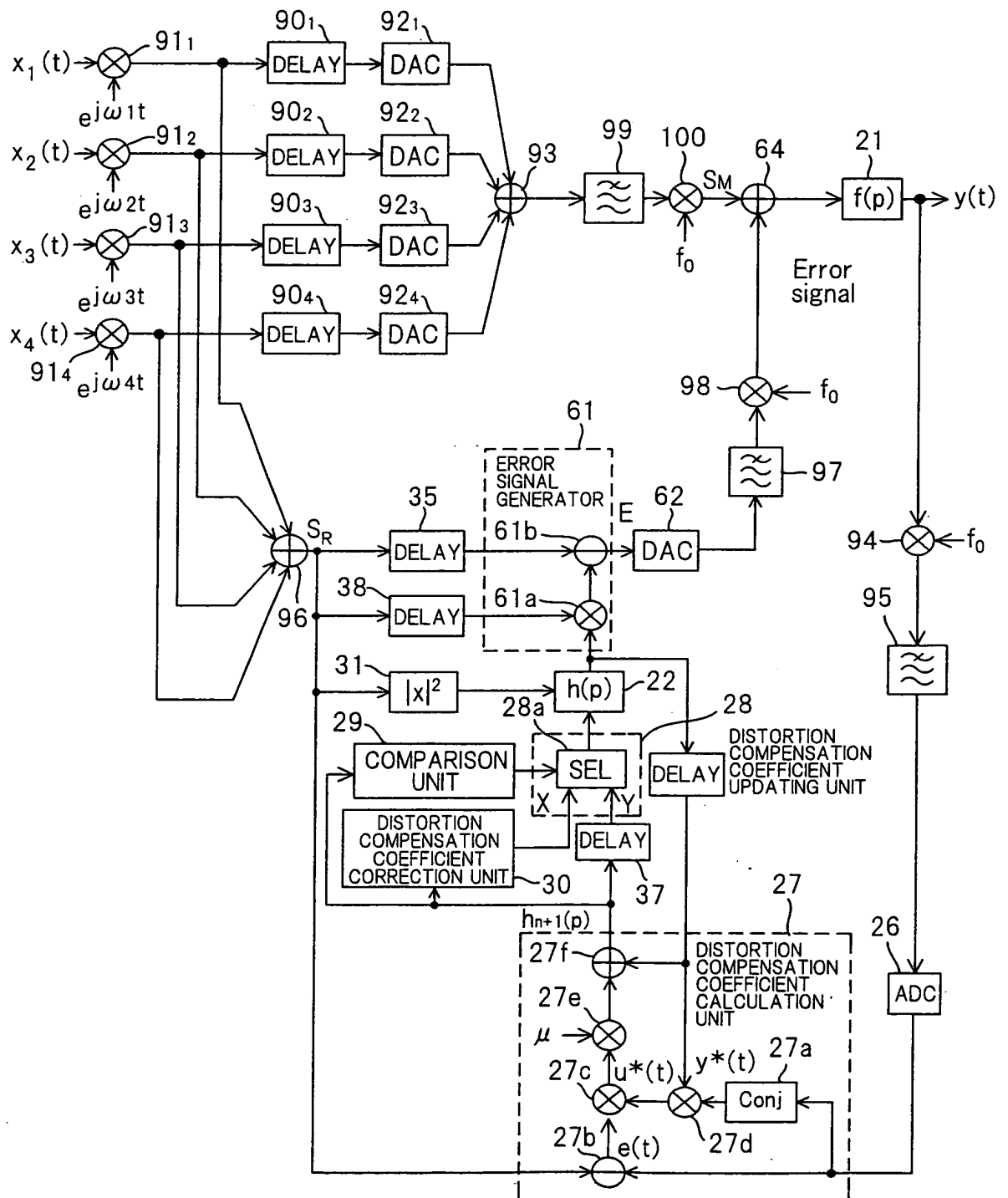


FIG. 27

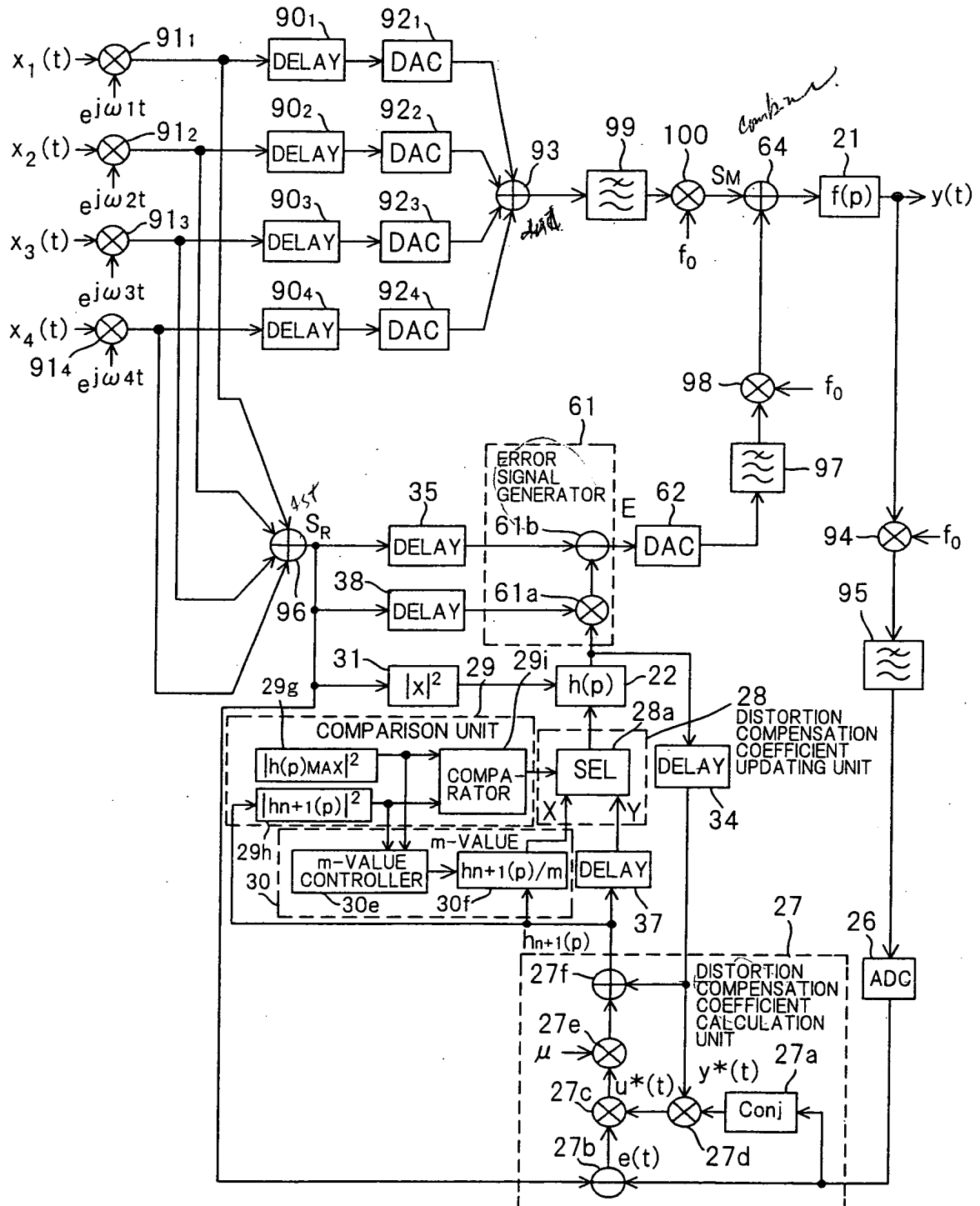


FIG. 28

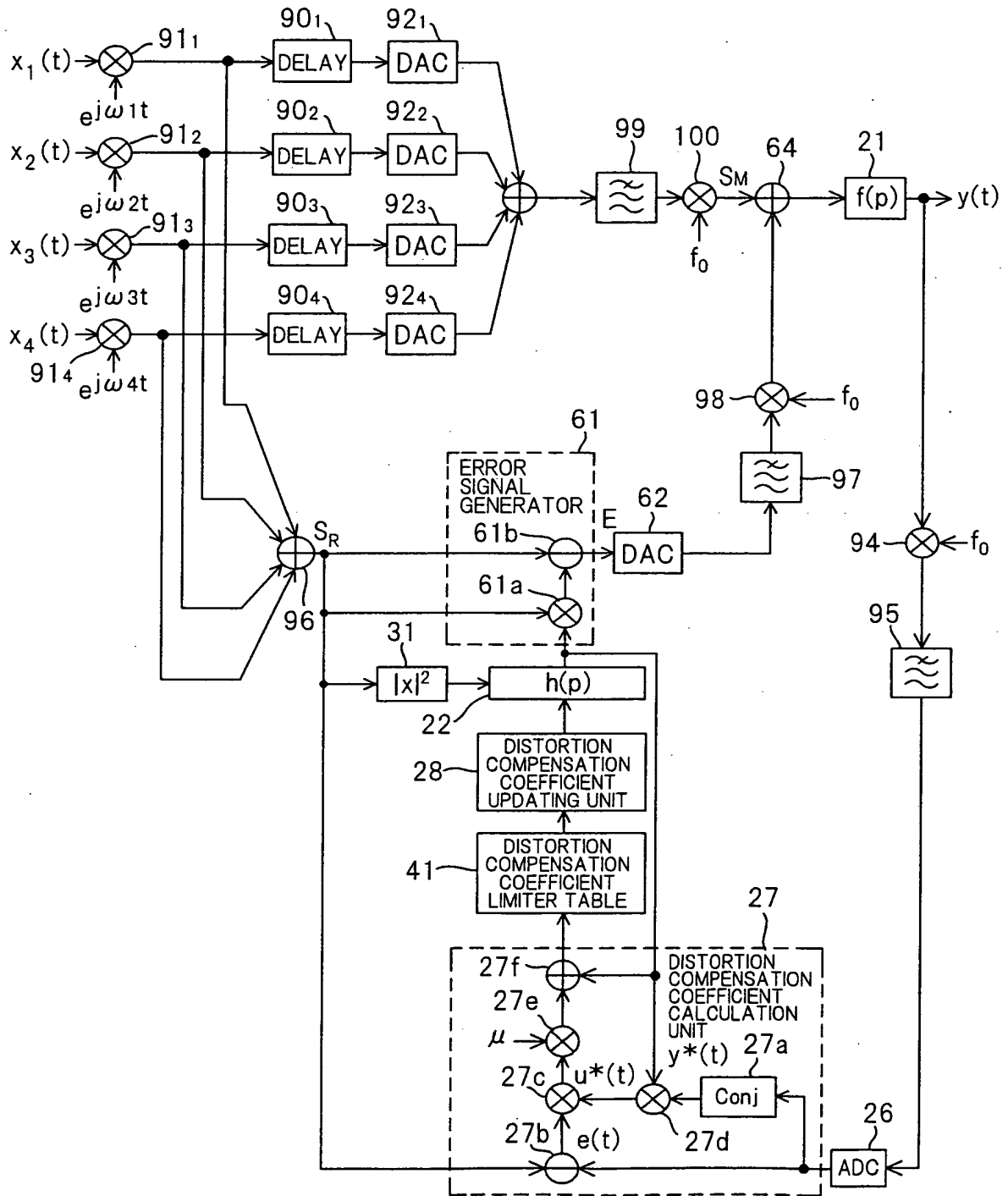


FIG. 29

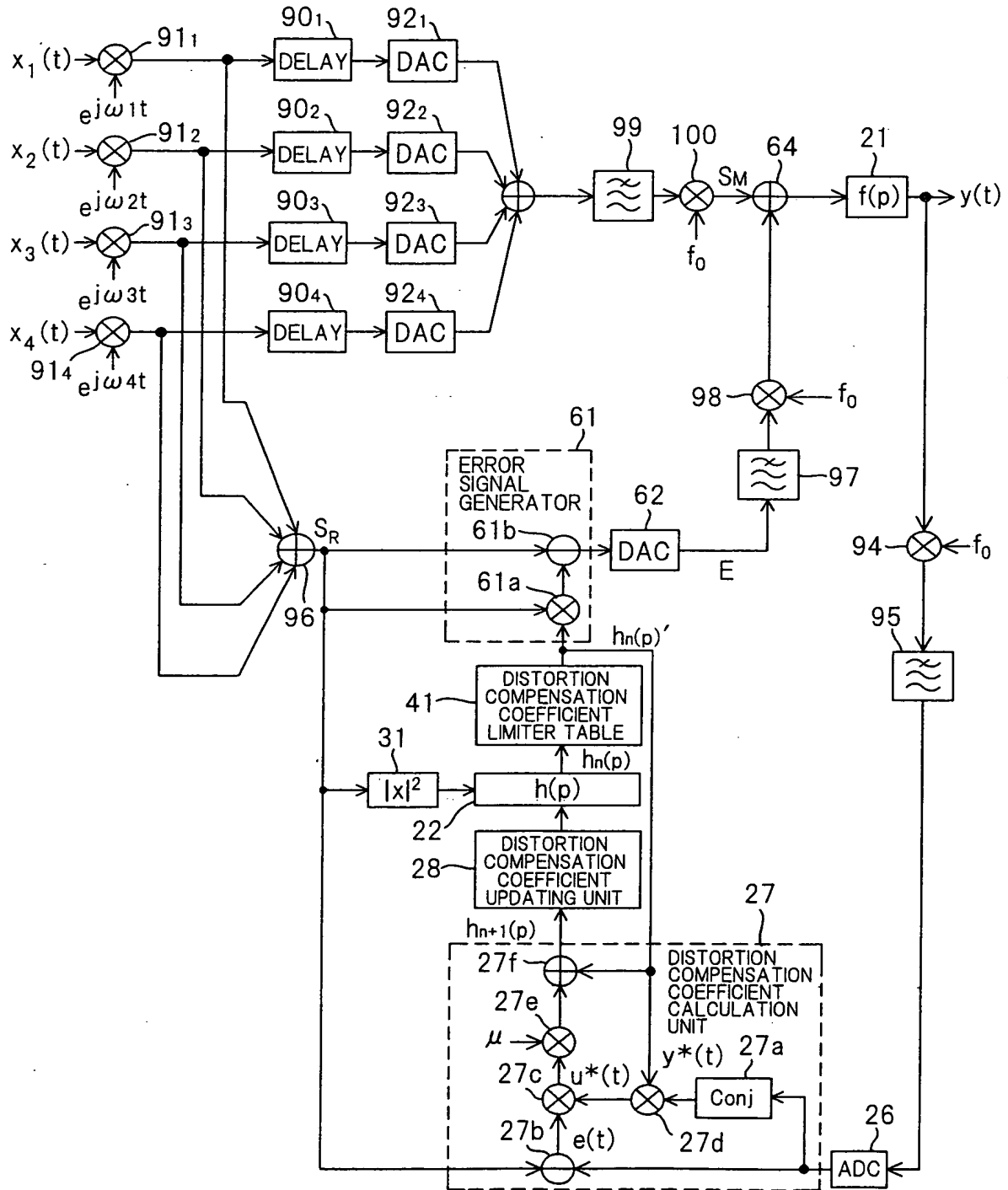


FIG. 30

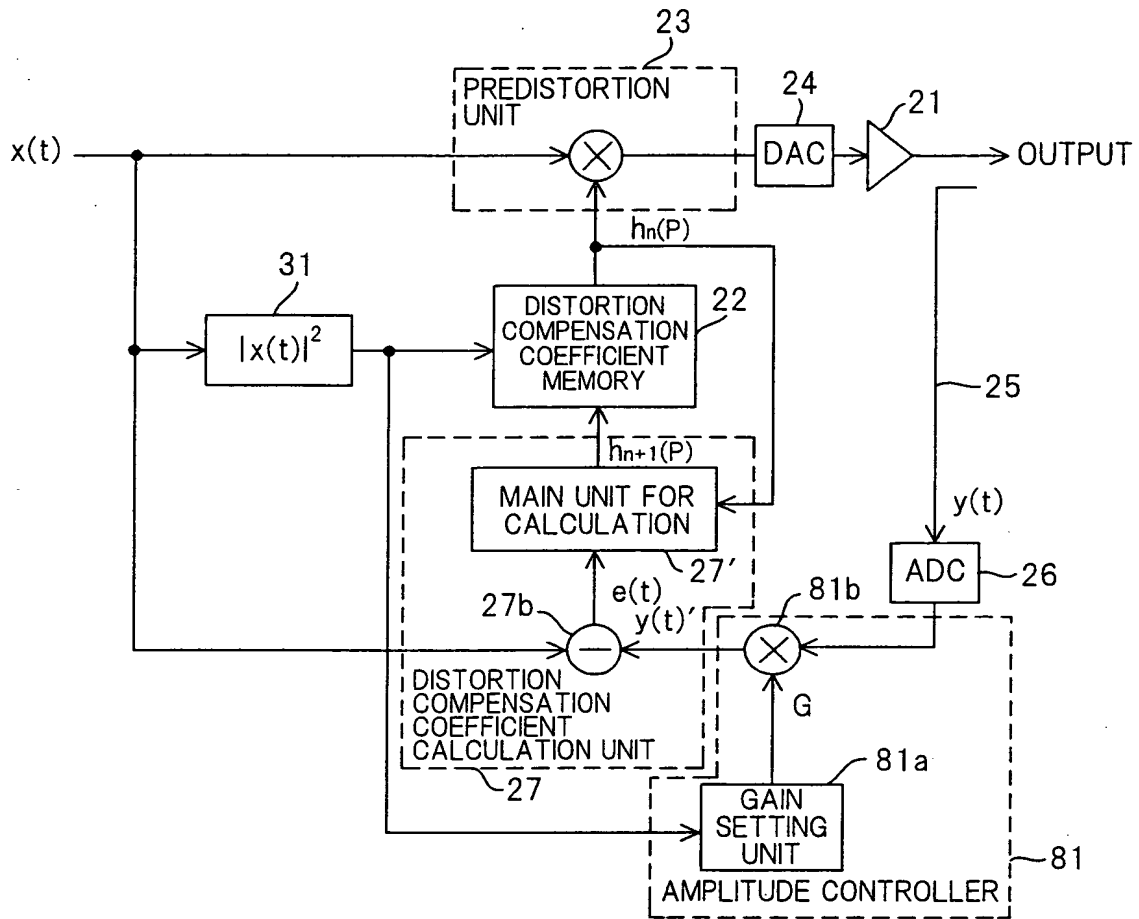


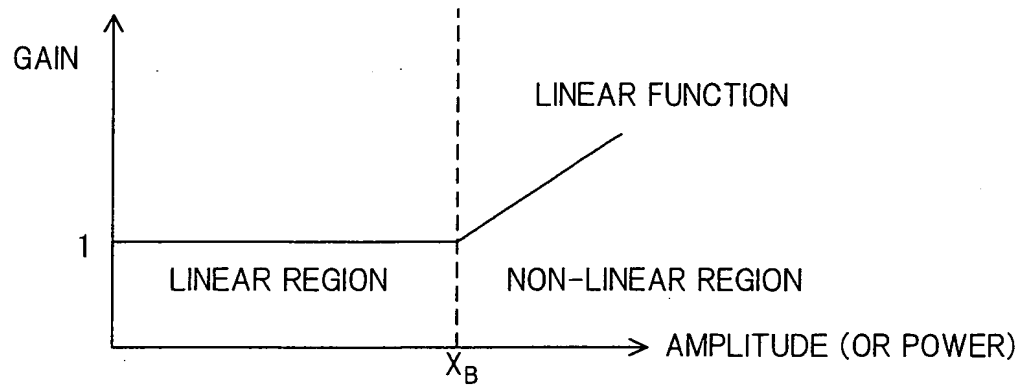
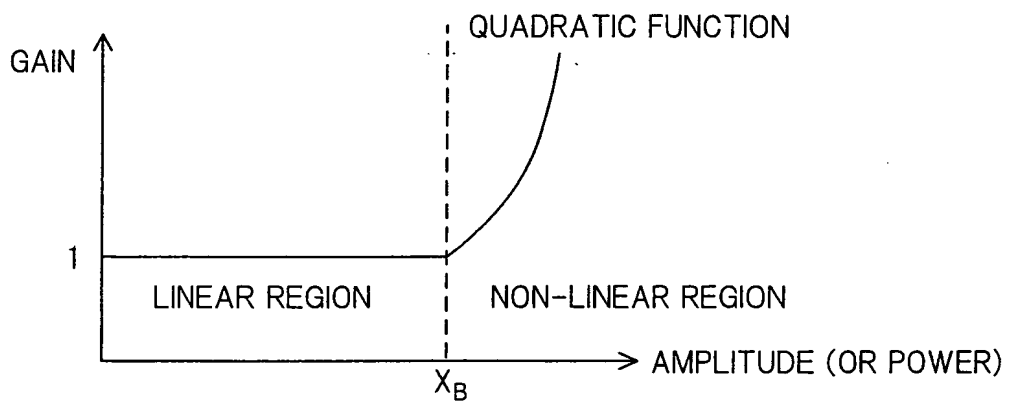
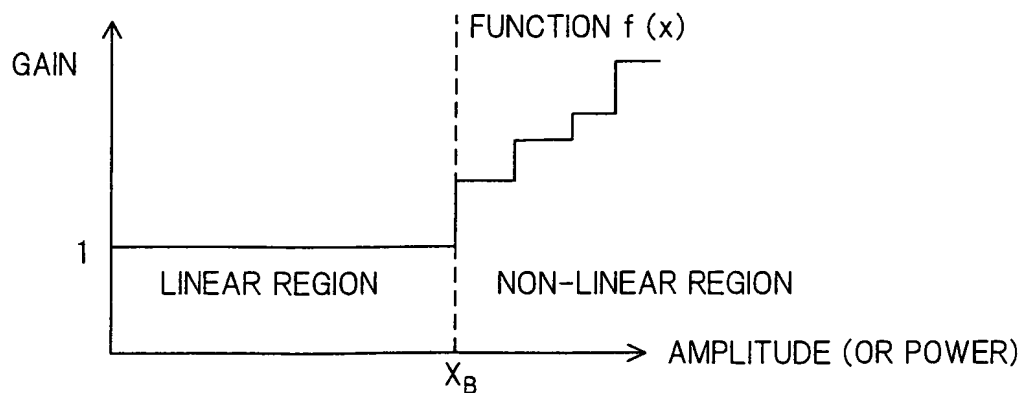
FIG. 31A*FIG. 31B**FIG. 31C*

FIG. 32

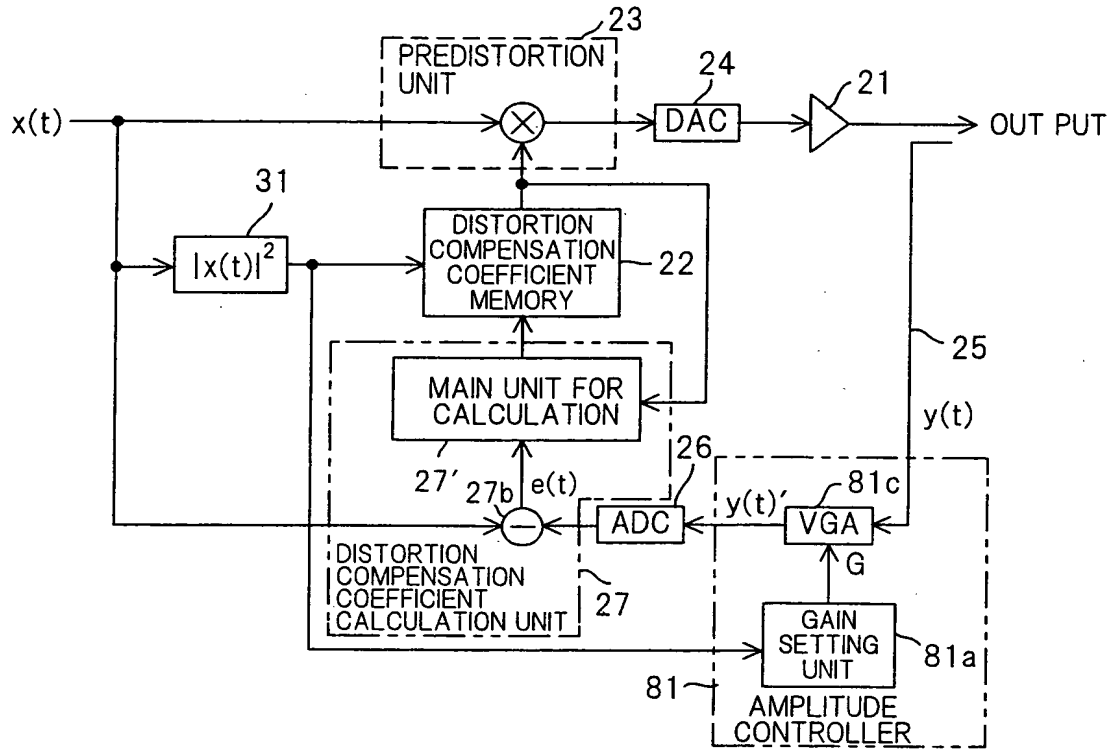


FIG. 33

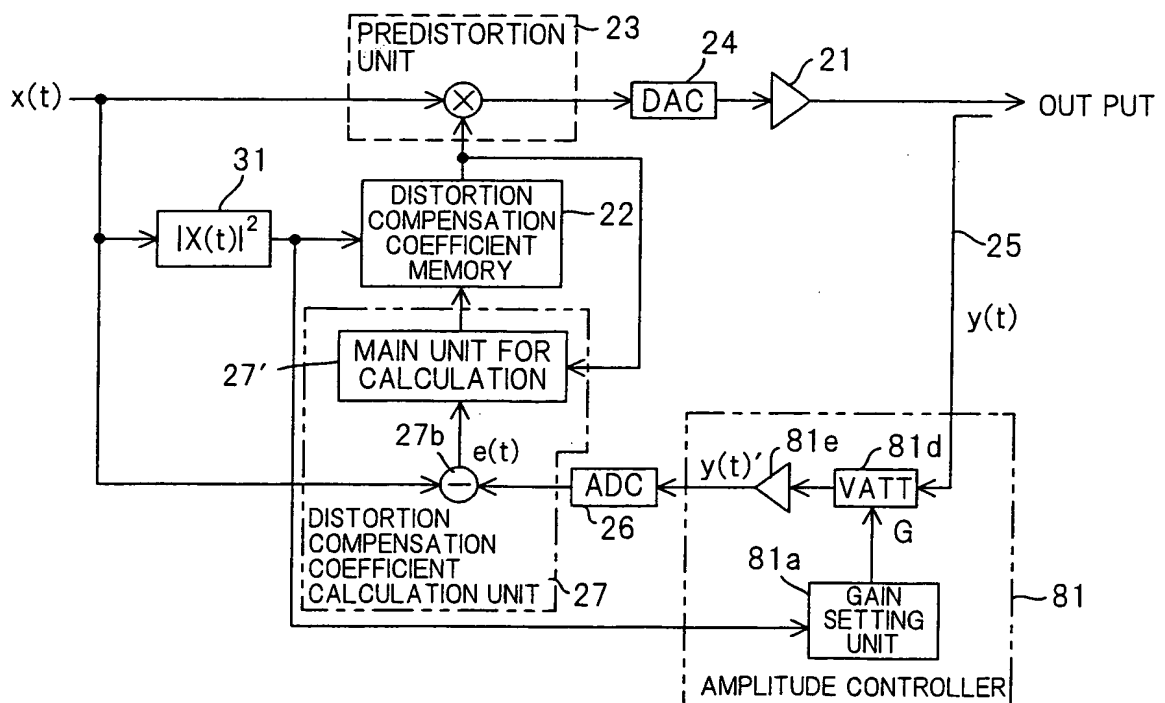


FIG. 34

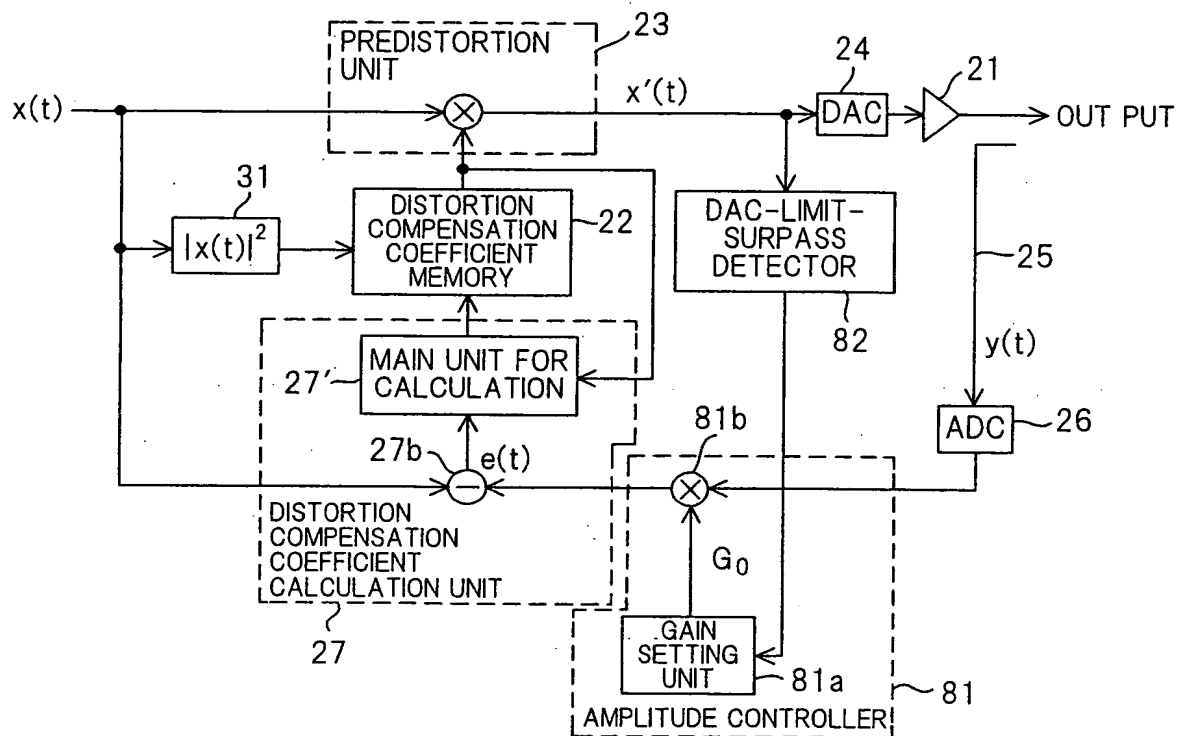


FIG. 35

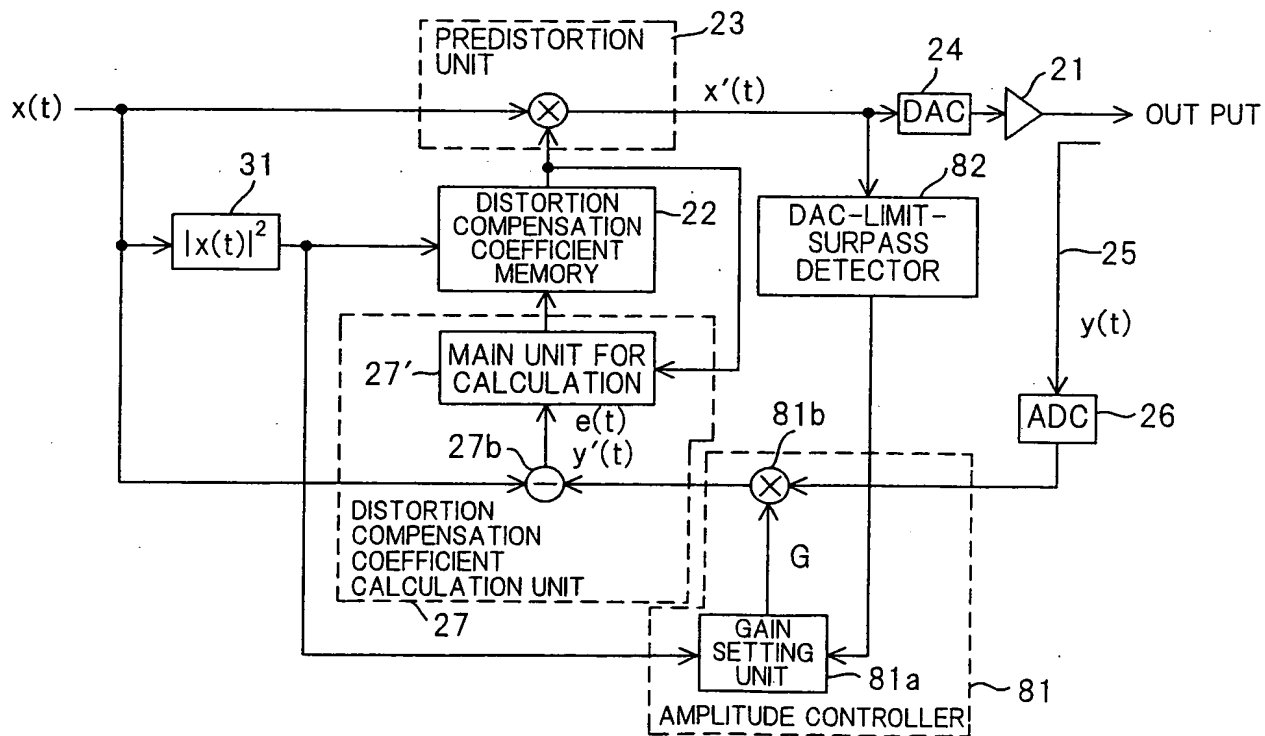


FIG. 36

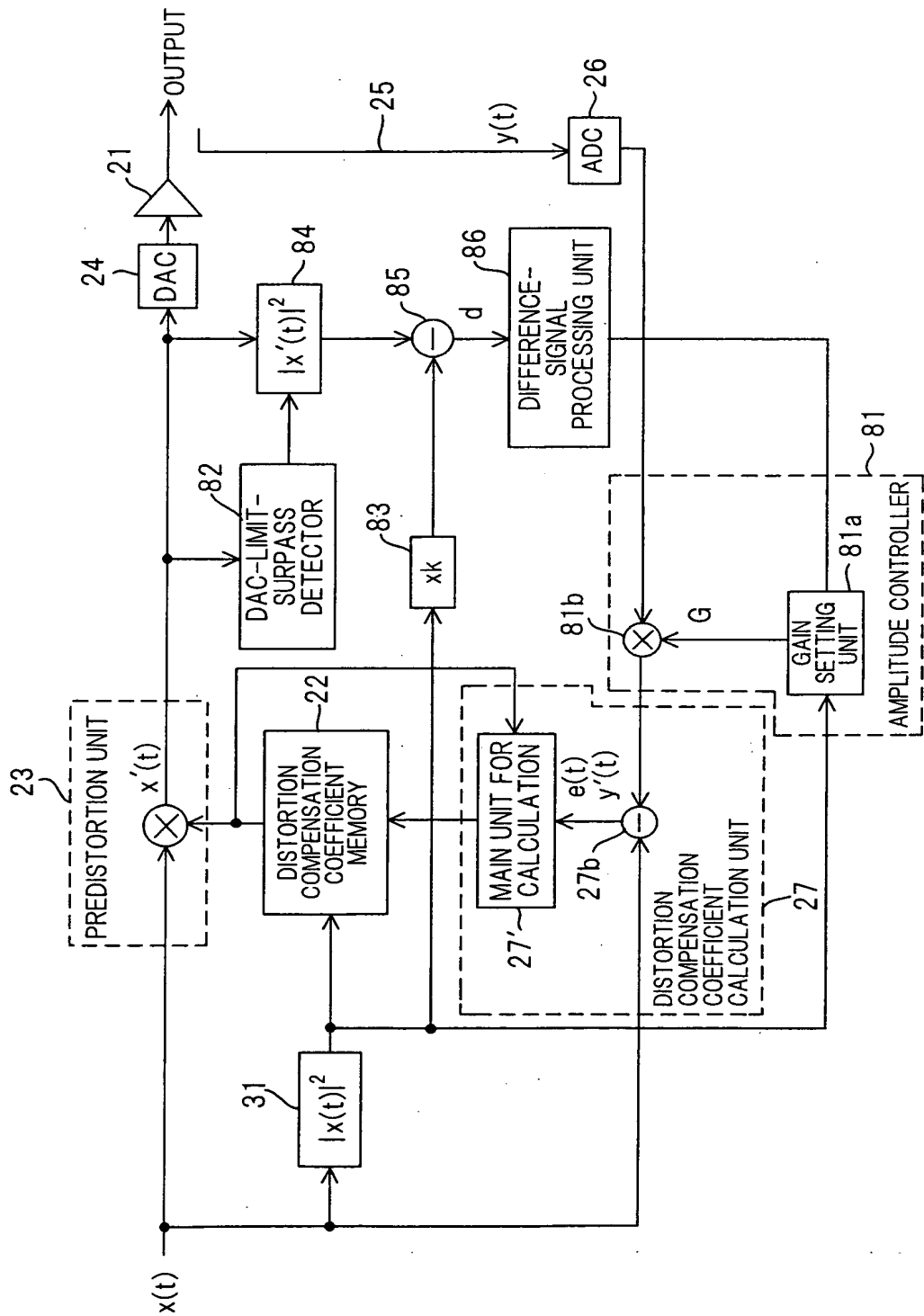


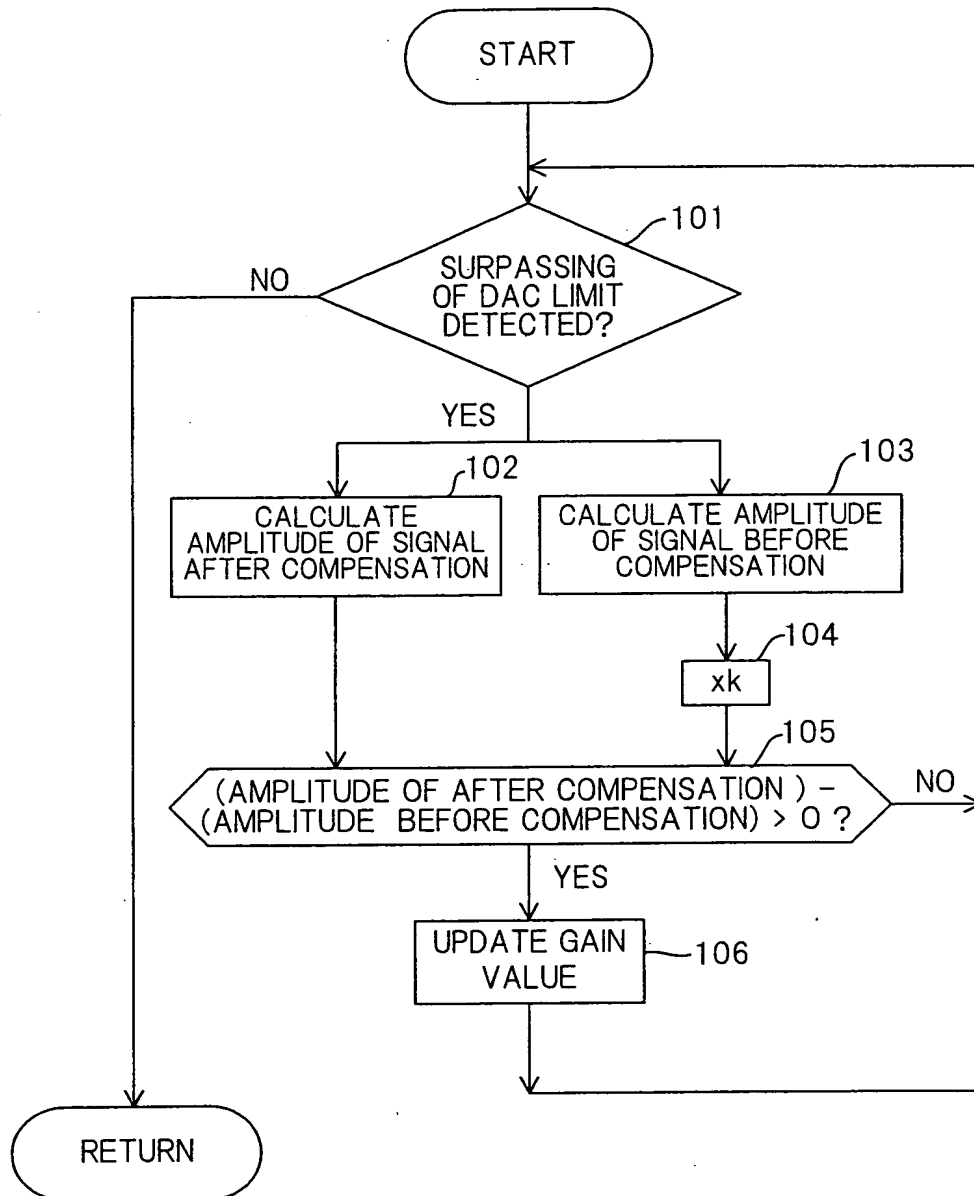
FIG. 37

FIG. 38

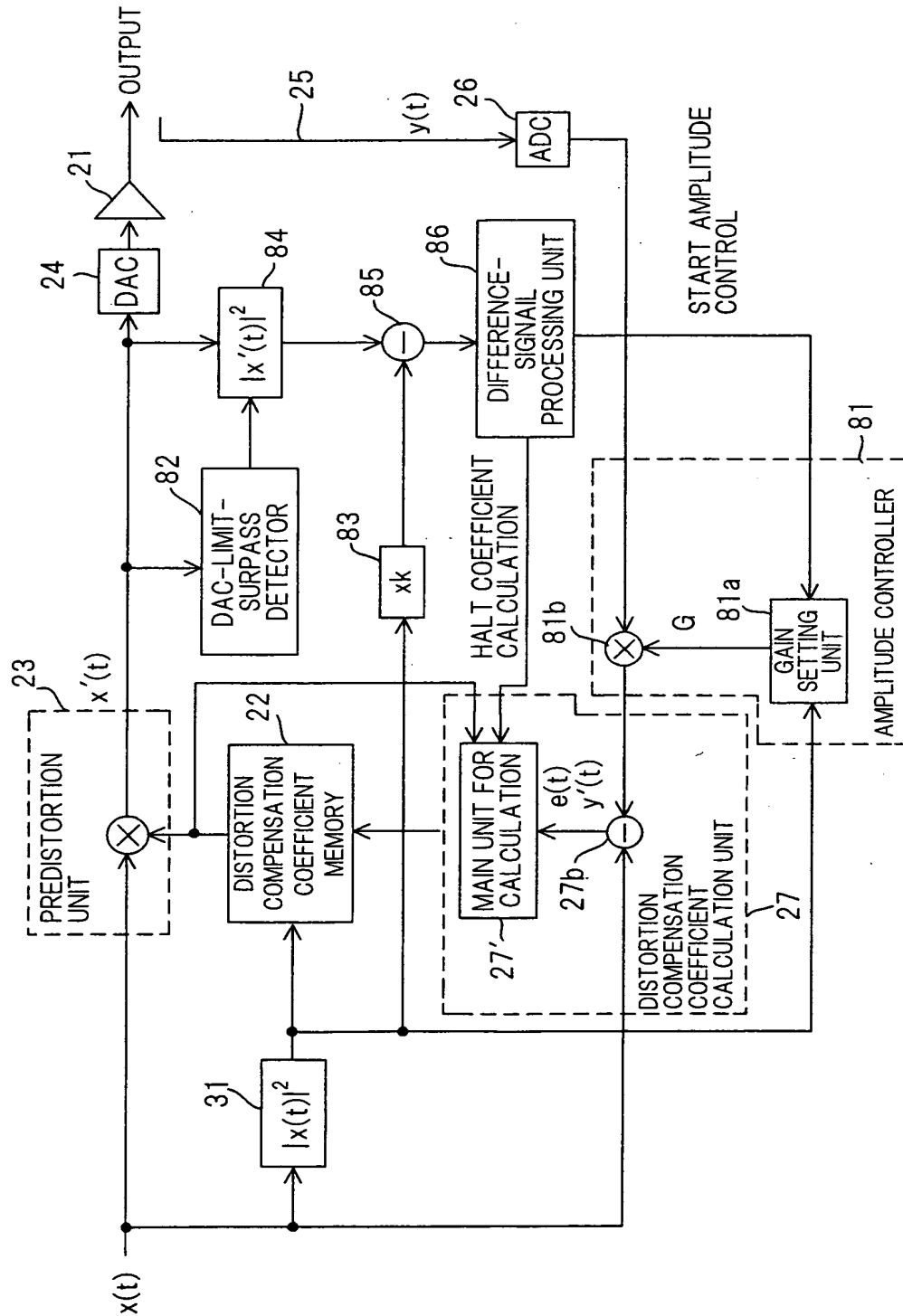
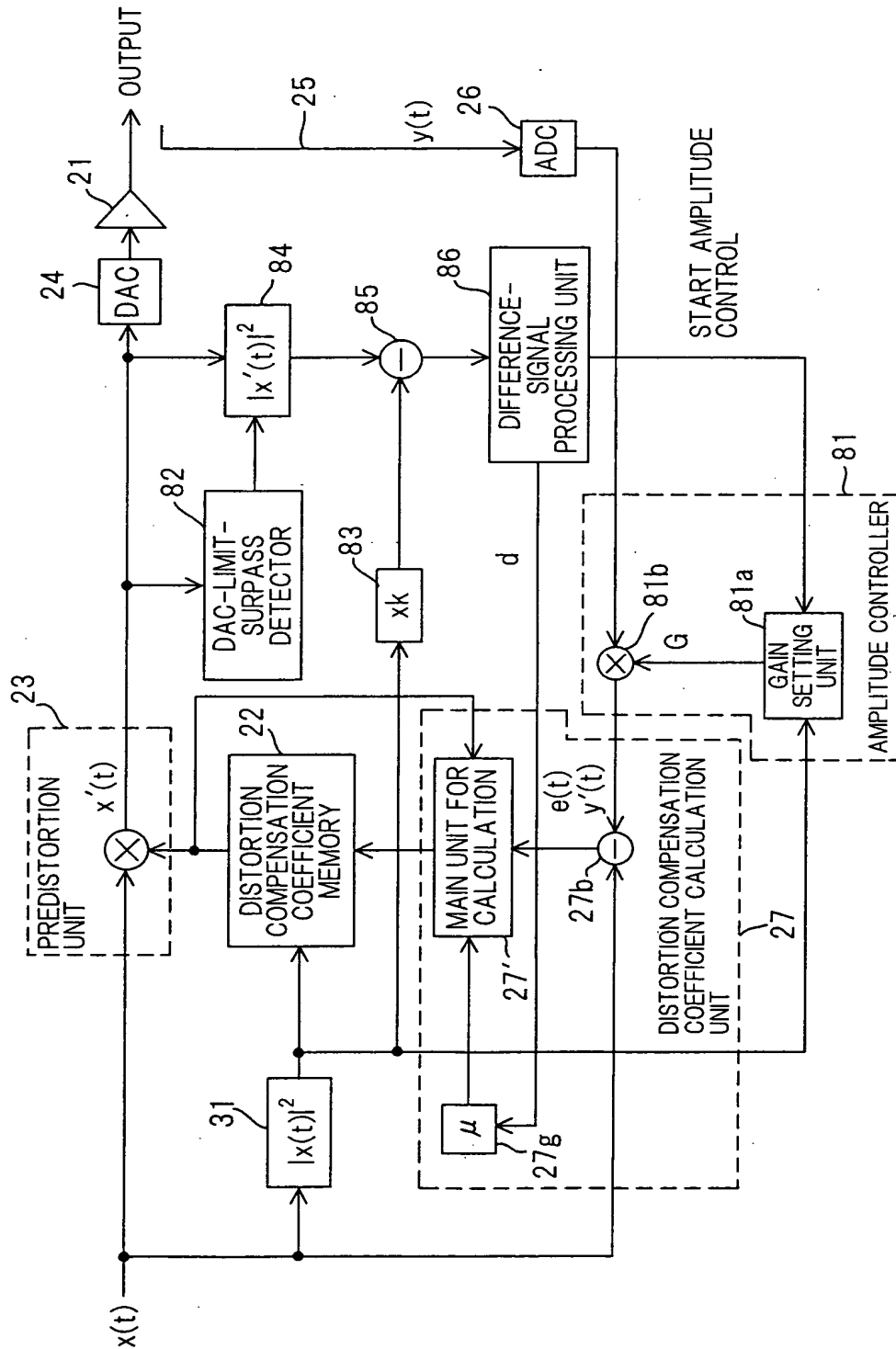


FIG. 39



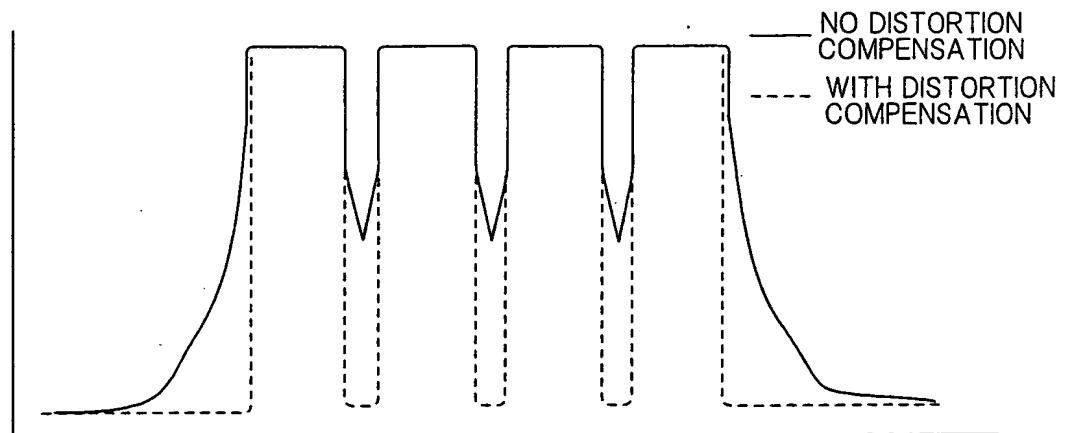
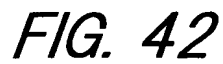


FIG. 43

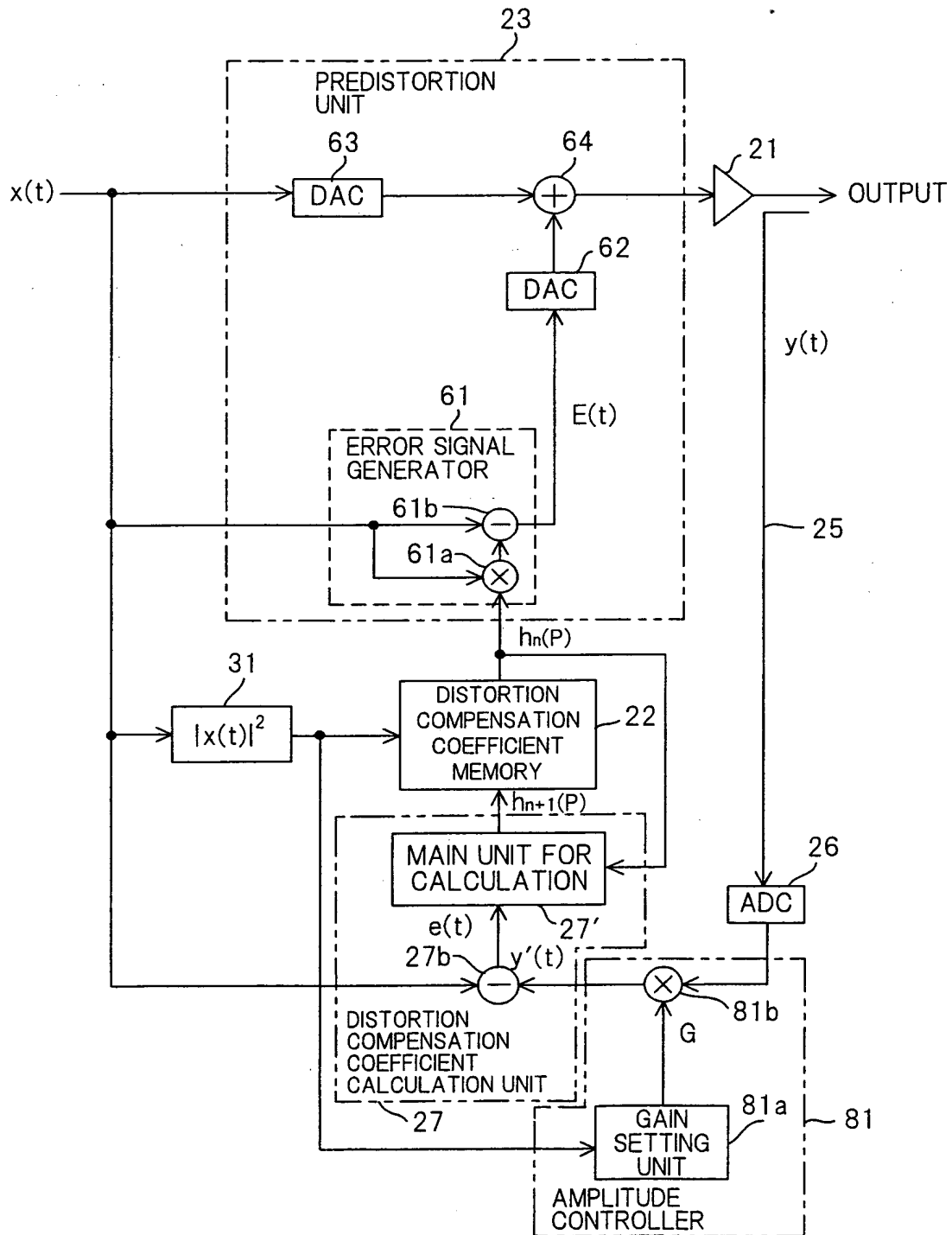


FIG. 44

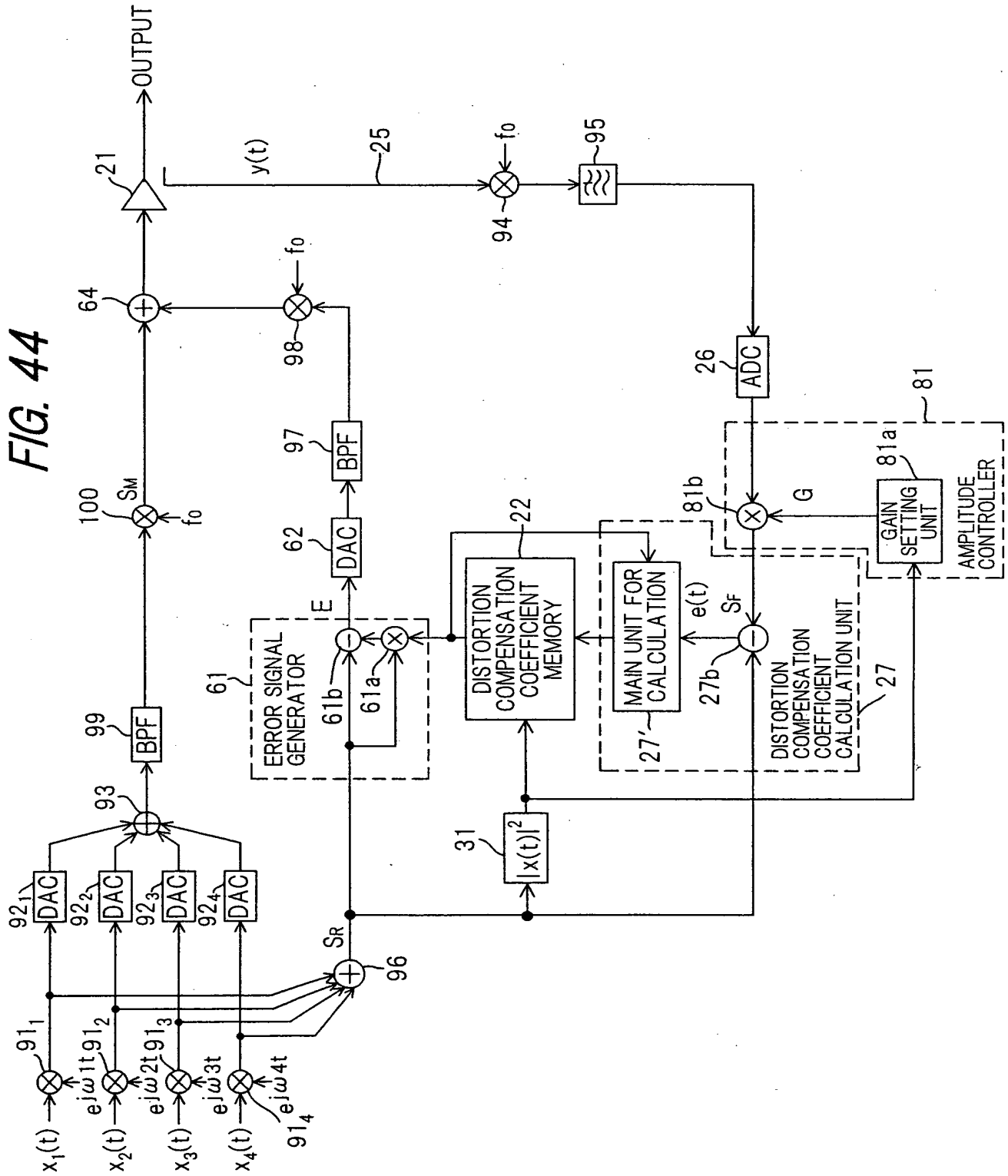


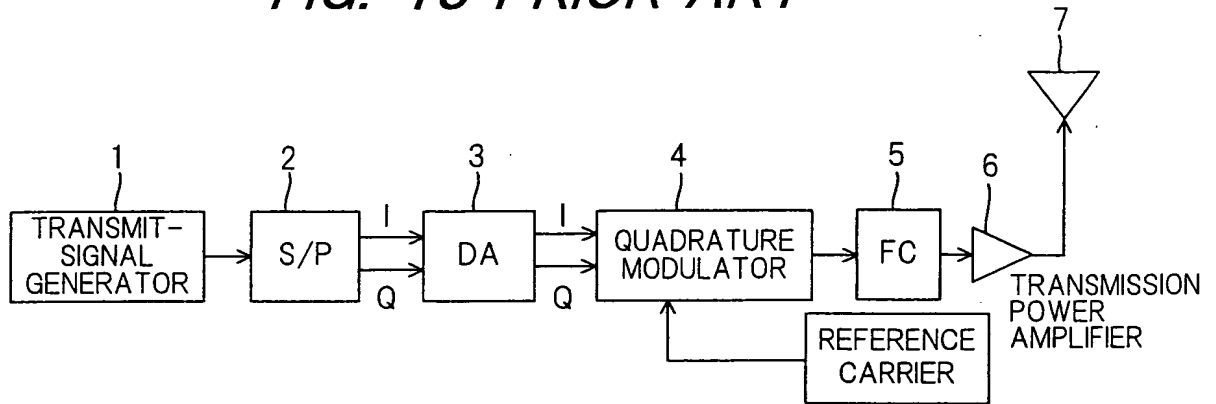
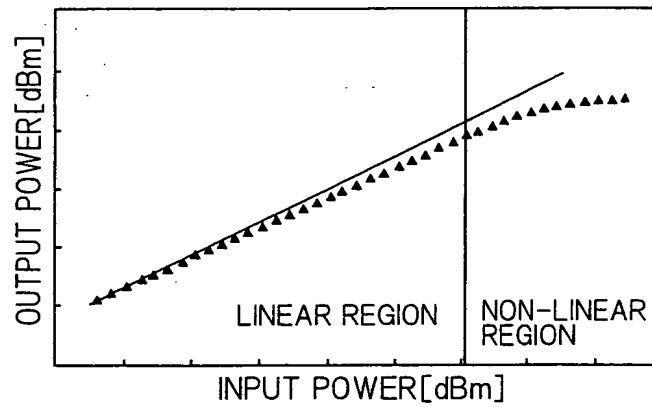
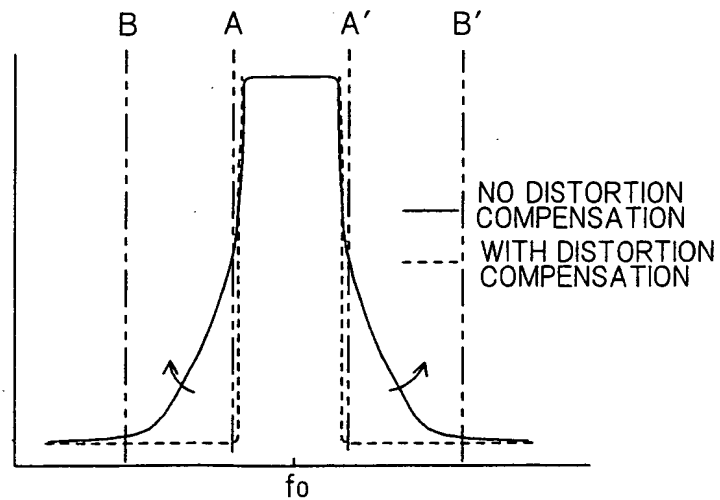
FIG. 45 PRIOR ART*FIG. 46A PRIOR ART**FIG. 46B PRIOR ART*

FIG. 47 PRIOR ART

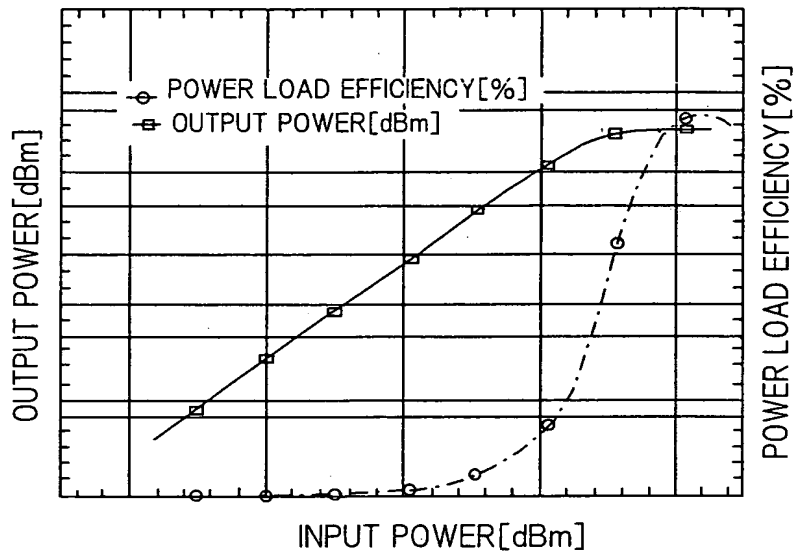


FIG. 48 PRIOR ART

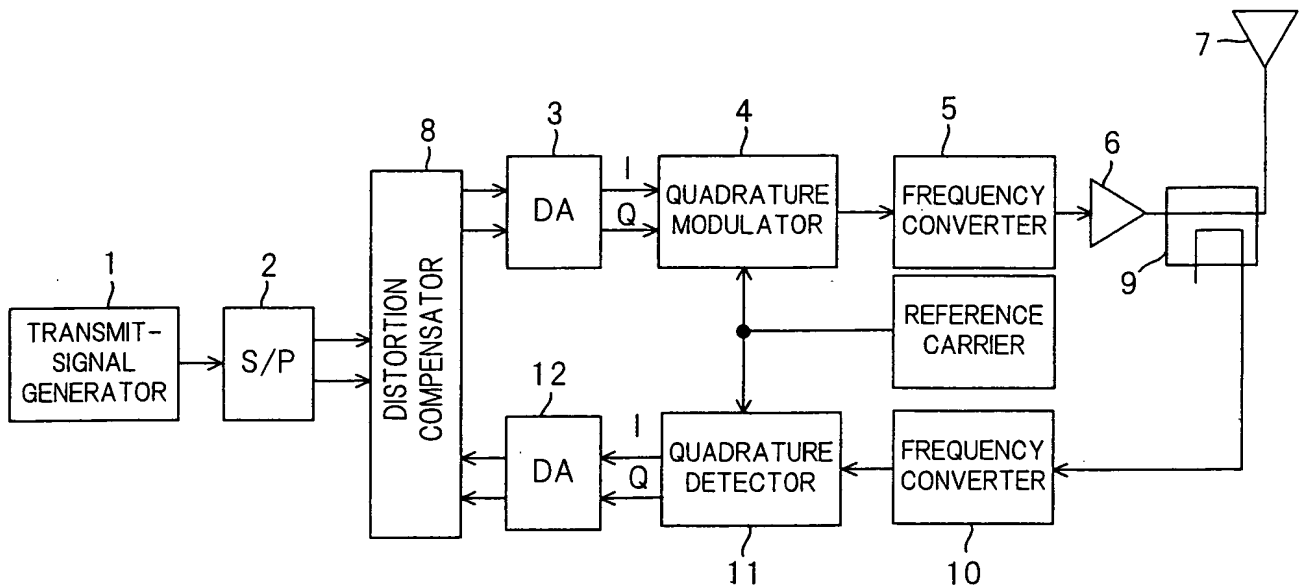
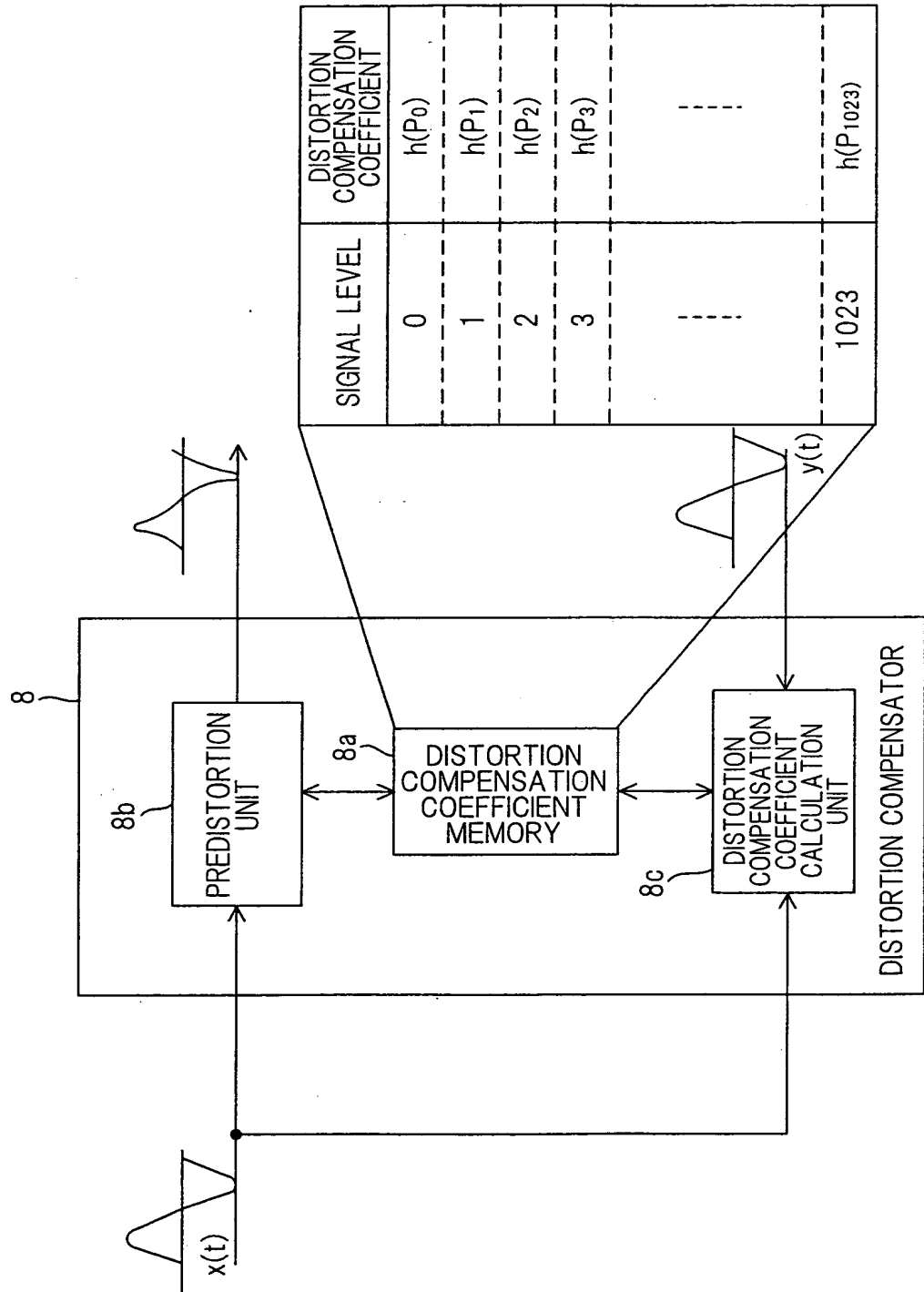


FIG. 49 PRIOR ART



[illegible]

$u(t)$: DISTORTED SIGNAL

FIG. 51 PRIOR ART

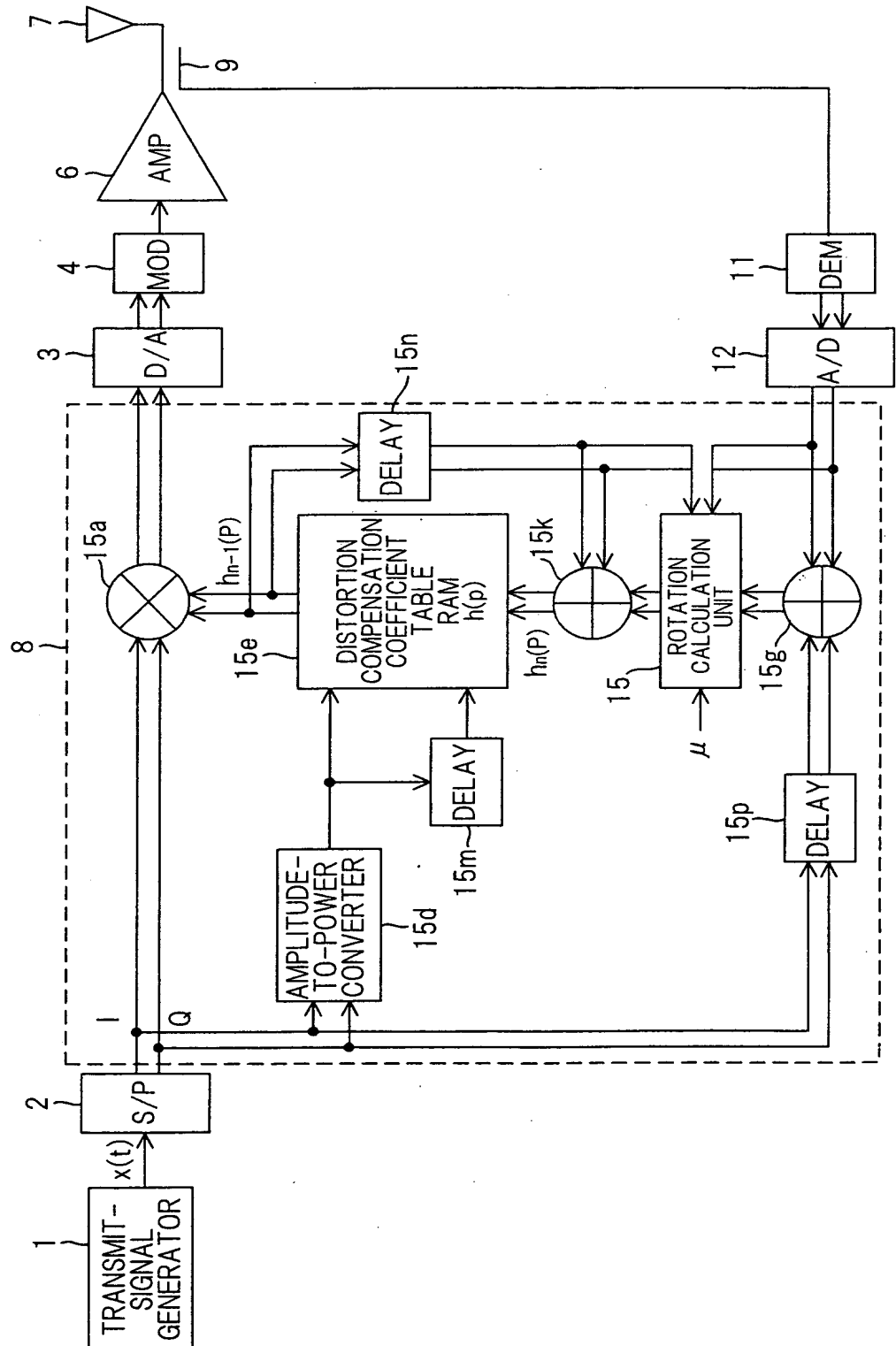


FIG. 52 PRIOR ART